Digitized by the Internet Archive
in 2025

https://archive.org/details/birdsofpacificco0000will_v6y9

PUTNAM'S

NATURE FIELD BOOKS

Companion books to this one

Mathews	American Wild Flowers
	American Trees and Shrubs
	Wild Birds and Their Music
Durand	Wild Flowers in Homes and Gardens
	My Wild Flower Garden
	Common Ferns
Lutz	Insects
Loomis	Rocks and Minerals
Eliot	Birds of the Pacific Coast
Armstrong	Western Wild Flowers
Alexander	Birds of the Ocean
Anthony	North American Mammals
Thomas	Common Mushrooms
Sturgis	Birds of the Panama Canal Zone
Miner	Seashore Life
Breder	Marine Fishes of the Atlantic Coast
Morgan	Ponds and Streams
Longyear	Rocky Mountain Trees and Shrubs
Olcott, Putnam	Field Book of the Skies
Beebe, Tee-Van	The Shore Fishes of Bermuda
Schrenkeisen	Fresh-Water Fishes of North America North of Mexico

BIRDS OF THE PACIFIC COAST

Including a brief account of the distribution and habitat of one hundred and eighteen birds that are more or less common to the Pacific Coast states and British Columbia, many of which are found eastward to the Rocky Mountains and beyond

BY

WILLARD AYRES ELIOT

WITH FIFTY-SIX COLOR PLATES BY

R. BRUCE HORSFALL

G. P. PUTNAM'S SONS

NEW YORK AND LONDON

Copyright, 1923
by
Willard Ayres Eliot

Sixth Impression

All rights reserved. This book, or parts thereof, must not be reproduced in any form without permission.

Made in the United States of America
Color Cuts made by Beaver Engraving Company, Portland, Oregon

PREFACE

Birds of the Pacific Coast is intended as a field book, giving the distribution and habitat, and illustrating one hundred and eighteen birds which are more or less common to all of the Pacific Coast states and British Columbia, and only a few that are rare or of local occurrence. Many of the birds described in this book may be found as far east as the Rocky Mountains, and some as far as the Mississippi Valley.

The migratory habits of many of our strictly western birds do not seem to be as pronounced as among members of the same families along the Atlantic seaboard. This seems especially true of many of the warblers, bluebirds, thrushes, vireos, robins, wrens and purple finches. It would seem that our milder winter climate has something to do with this retarded movement of our birds during their southward migration in the fall.

The plates are colored to show the males in full breeding plumage, and where the

females differ radically in color from the males they are shown whenever practicable. Many birds go through a seasonal change of plumage which requires special study and observation on the part of the amateur bird student. No attempt is made to describe the plumage except to call attention to some striking patch of color that will serve as a distinct field mark.

The lengths are given in inches, and are averages, some birds are longer and some shorter than the figures quoted.

The arrangement of the birds and the text was made without regard to their proper order in the check-list and simply follows a whimsical plan of my own, bearing in mind that the average person is first interested in the smaller land birds that are found about his home.

The classification and nomenclature used in this book are those of the 1910 Check-List of the American Ornithologists' Union. Although many new sub-species have been recognized since its publication there is still much controversy regarding them and it was thought best to keep to the accepted list.

The paragraphs on distribution are based mainly on Ridgway's *Birds of North and Middle America*, with some minor changes

due to later reports and local observations. Other works that have been freely consulted are Bendire's *Life Histories of North American Birds*; Bailey's *Handbook of Birds of the Western United States*; Chapman's *The Warblers of North America*; Finley's *American Birds*; and Dawson's *Birds of Washington.*

I wish here to express my thanks to William L. Finley and Stanley G. Jewett for their helpful and kindly criticism of the text.

Birds of the Pacific Coast is dedicated to the amateur bird students of the West, especially to the teachers and students in our public schools, who in ever increasing numbers are asking "What bird is that?"

WILLARD AYRES ELIOT.

PORTLAND, OREGON,

INTRODUCTION

THE popular interest and love for wild birds has advanced with such strides in the past twenty years that it seems quite unlikely that any more bird species will completely disappear through the destructive agency of man. The most far-reaching influence in America to-day for fair play and protection to birds is the widespread organizing of school children in junior Audubon societies. A class of approximately three hundred thousand pupils each year, who receive illustrated educational leaflets of the commoner birds has become a vital influence in protecting and encouraging wild birds about the home.

The National Association of Audubon Societies and the different state Audubon societies have molded public opinion and secured the pasage and enforcement of proper laws and have built up a general love and interest in birds. This has resulted in a greater

need for books about the common birds that every person wants to know.

The field of bird literature in the eastern states is more productive than on the Pacific Coast. Along the western slope there is a real need for a small popular handbook. Many people who have a limited time out-of-doors are anxious for a short cut in getting acquainted with the birds in the woods. A careful written description is good, an accurate colored bird sketch is often a quicker help. This volume with its short descriptions and colored pictures should be a welcome companion for bird lovers on their first walks in the fields and forests.

William L. Finley.

CONTENTS

PAGE

FAMILY TURDIDÆ:

Western bluebird 3
Mountain bluebird 4
Western robin 6
Varied thrush 7
Russet-backed thrush 9
Sierra hermit thrush 11

FAMILY SYLVIIDÆ:

Western golden-crowned kinglet . . . 12
Ruby-crowned kinglet 14

FAMILY TROGLODYTIDÆ:

Seattle wren. 15
Western house wren 16
Western winter wren 18
Tule wren 19

FAMILY MNIOTILTIDÆ:

California yellow warbler 20
Pacific yellow-throat 21
Golden pileolated warbler 22
Lutescent warbler 23
Black-throated gray warbler 24
Macgillivray warbler 25
Audubon warbler 26
Long-tailed chat 28
Townsend warbler 29
Hermit warbler 30

FAMILY VIREONIDÆ:

Western warbling vireo 32
Cassin vireo 33

CONTENTS

PAGE

FAMILY PARIDÆ:
- Oregon chickadee 35
- Chestnut-backed chickadee 37
- Bush-tit 38

FAMILY CHAMÆIDÆ:
- Coast wren-tit 39

FAMILY CERTHIIDÆ:
- California creeper 41

FAMILY SITTIDÆ:
- Slender-billed nuthatch 42
- Red-breasted nuthatch 42
- Pygmy nuthatch 43

FAMILY CINCLIDÆ:
- Dipper (water ouzel) 45

FAMILY TROCHILIDÆ:
- Rufous hummingbird 47

FAMILY CAPRIMULGIDÆ:
- Pacific nighthawk 50

FAMILY MICROPODIDÆ:
- Vaux swift 51

FAMILY HIRUNDINIDÆ:
- Cliff swallow 53
- Tree swallow 54
- Northern violet-green swallow . . . 55
- Western martin 56
- Barn swallow 57
- Rough-winged swallow 58

FAMILY TYRANNIDÆ:
- Kingbird 59
- Arkansas kingbird 60
- Olive-sided flycatcher 61
- Western wood pewee 62
- Traill flycatcher 62
- Say phœbe 63

CONTENTS

PAGE

FAMILY BOMBYCILLIDÆ:
- Bohemian waxwing 64
- Cedar waxwing 65

FAMILY TANGARIDÆ:
- Western tanager 67

FAMILY FRINGILLIDÆ:
- Black-headed grosbeak 68
- Lazuli bunting 70
- Oregon junco 71
- Oregon towhee 73
- Golden-crowned sparrow 74
- Nuttall sparrow 76
- Rusty song sparrow 77
- Townsend fox sparrow 78
- Western lark sparrow 80
- Oregon vesper sparrow 80
- Western savanna sparrow 81
- Western chipping sparrow 82
- Willow goldfinch 83
- Green-backed goldfinch 85
- Crossbill 86
- Pine siskin 87
- California purple finch 88
- Cassin purple finch 90
- Hepburn rosy finch 91
- Redpoll 93
- Western evening grosbeak 94

FAMILY ICTERIDÆ:
- Bullock oriole 97
- Northwestern red-wing 98
- Brewer blackbird 100
- Bobolink 101
- Yellow-headed blackbird 102
- Western meadowlark 104

FAMILY ALAUDIDÆ:
- Streaked horned lark 105

CONTENTS

PAGE

FAMILY ALCEDINIDÆ:
Belted kingfisher 107

FAMILY CORVIDÆ:
Steller jay 109
Oregon jay 111
California jay 112
Piñon jay 113
Magpie 115
Western crow 116
Clarke nutcracker 117

FAMILY PICIDÆ:
Red-shafted flicker 118
Northern red-breasted sapsucker . . . 119
Harris woodpecker 121
Gairdner woodpecker 122
California woodpecker 123

Northern pileated woodpecker 124
Lewis woodpecker. 125

FAMILY ODONTOPHORIDÆ:
Bobwhite 126
Mountain quail 129
California quail 131

FAMILY PHASIANIDÆ:
Ring-necked pheasant 132

FAMILY TETRAONIDÆ:
Sooty grouse 135
Oregon ruffed grouse 137

FAMILY COLUMBIDÆ:
Band-tailed pigeon 138
Mourning dove 139

FAMILY SCOLOPACIDÆ:
Spotted sandpiper. 141

FAMILY CHARADRIIDÆ
Killdeer 142

CONTENTS

PAGE

FAMILY COLYMBIDÆ:
Pied-billed grebe 144

FAMILY RALLIDÆ:
Coot 145

FAMILY ARDEIDÆ:
Great blue heron 146

FAMILY FALCONIDÆ:
Desert sparrow hawk 149

FAMILY BUTEONIDÆ:
Western red-tailed hawk 150
Sharp-shinned hawk 152
Cooper hawk 154

FAMILY STRIGIDÆ:
Long-eared owl 155
Short-eared owl 156
Dusky horned owl 156
Kennicott screech owl 158
California pygmy owl 159

FAMILY ALUCONIDÆ:
Barn owl 160

FAMILY CUCULIDÆ:
Road-runner 161

SYSTEMATIC SYNOPSIS OF LIVING NORTH AMERICAN BIRDS TO AND INCLUDING THE FAMILIES . . 165

LIST OF BIRDS FOUND IN BRITISH COLUMBIA, WASHINGTON, OREGON AND CALIFORNIA . . . 169

INDEX 207

COLOR PLATES

(At Back of Book)

PAGE

WESTERN BLUEBIRD, MOUNTAIN BLUEBIRD . 213

WESTERN ROBIN, VARIED THRUSH . . 214

RUSSET-BACKED THRUSH, SIERRA HERMIT THRUSH 215

WESTERN GOLDEN-CROWNED KINGLET, RUBY-CROWNED KINGLET 216

WESTERN HOUSE WREN, SEATTLE WREN . 217

WESTERN WINTER WREN, TULE WREN . . 218

GOLDEN PILEOLATED WARBLER, PACIFIC YELLOW-THROAT, CALIFORNIA YELLOW WARBLER 219

MACGILLIVRAY WARBLER, LUTESCENT WARBLER, BLACK-THROATED GRAY WARBLER . 220

AUDUBON WARBLER, LONG-TAILED CHAT . 221

HERMIT WARBLER, TOWNSEND WARBLER . 222

WESTERN WARBLING VIREO, CASSIN VIREO . 223

OREGON CHICKADEE, CHESTNUT-BACKED CHICKADEE, CALIFORNIA CREEPER . . . 224

SLENDER-BILLED NUTHATCH, RED-BREASTED NUTHATCH, PYGMY NUTHATCH . . . 225

BUSH-TIT, COAST WREN-TIT 226

DIPPER 227

RUFOUS HUMMINGBIRD 228

VAUX SWIFT, PACIFIC NIGHTHAWK . . 229

NORTHERN VIOLET-GREEN SWALLOW, TREE SWALLOW, CLIFF SWALLOW . . . 230

WESTERN MARTIN, BARN SWALLOW, ROUGH-WINGED SWALLOW 231

OLIVE-SIDED FLYCATCHER, TRAILL FLYCATCHER, WESTERN WOOD PEWEE . . 232

COLOR PLATES

	PAGE
Arkansas Kingbird, Kingbird, Say Phœbe	233
Cedar Waxwing, Bohemian Waxwing	234
Western Tanager, Bullock Oriole	235
Black-headed Grosbeak, Lazuli Bunting	236
Oregon Towhee, Oregon Junco	237
Golden-crowned Sparrow, Nuttall White-crowned Sparrow	238
Rusty Song Sparrow, Townsend Fox Sparrow, Western Lark Sparrow	239
Oregon Vesper Sparrow, Western Chipping Sparrow, Western Savanna Sparrow	240
Willow Goldfinch, Green-backed Goldfinch	241
Crossbill, Pine Siskin	242
California Purple Finch, Cassin Purple Finch	243
Redpoll, Hepburn Rosy Finch	244
Western Evening Grosbeak	245
Brewer Blackbird, Northwestern Red-winged Blackbird	246
Yellow-headed Blackbird, Bobolink	247
Western Meadowlark, Streaked Horned Lark	248
Belted Kingfisher	249
Steller Jay, Oregon Jay	250
California Jay, Piñon Jay	251
Western Crow, Magpie, Clarke Nutcracker	252
Red-shafted Flicker, Northern Red-breasted Sapsucker	253
Harris Woodpecker, Gairdner Woodpecker, California Woodpecker	254
Lewis Woodpecker, Pileated Woodpecker	255
Bobwhite	256
Ring-necked Pheasant	257
California Quail, Mountain Quail	258
Sooty Grouse, Oregon Ruffed Grouse	259

COLOR PLATES

	PAGE
Band-tailed Pigeon, Mourning Dove	260
Killdeer, Spotted Sandpiper	261
Coot, Pied-billed Grebe	262
Great Blue Heron	263
Western Red-tailed Hawk, Desert Sparrowhawk	264
Cooper Hawk, Sharp-shinned Hawk	265
Dusky Horned Owl, Long-eared Owl, Short-eared Owl	266
Barn Owl, Kennicott Screech Owl, California Pygmy Owl	267
Road-runner	268

Birds of the Pacific Coast

FAMILY *TURDIDÆ:* THRUSHES, BLUEBIRDS

767 Western blue bird, *Sialia mexicana occidentalis.* 6.75

Distribution: Pacific Coast district from British Columbia to southern California, and east to western Idaho and Nevada. Southward in winter to northern Mexico.

The western bluebird is a dark purplish blue instead of the bright blue of the eastern variety. It has a rufous patch on the upper back and the breast is rufous, the underparts washed with brownish. It is in every respect a darker and browner bird than the eastern bluebird.

The western bluebird is common throughout its range in the open country, about clearings, farms, orchards and along country roads where it may be seen perched on telephone poles and wires watching for the passing insects which it pursues in true flycatcher fashion. At other times it is often found in small flocks sitting on fence posts, from which

vantage point it watches for small insects on the ground beneath, dropping into the grass with a dainty flick of the wings, a characteristic of the family.

The song, or call note, of the bluebird is a gentle, warbling *trually, trually, trually.* It is so distinctive as to be a positive identification of the species, even when the bluebird is flying high overhead, and so far away as not to be distinguished in any other way.

The western bluebird, in common with other bluebirds, builds its nest in natural cavities in trees, old woodpeckers' holes and in cracks and crannies about outbuildings. It is also one of the easiest of birds to attract to bird boxes, and if undisturbed will return to the same locality year after year.

While the bluebird is highly migratory in most of its range many individuals often remain to winter in the protected valleys of the Pacific Slope.

768 Mountain bluebird, *Sialia currucoides.* 7.25

Distribution: Mountain districts of western North America, breeding from Alaska south to the mountains of Arizona, New Mexico and northern Mexico, east to Wyoming and Texas, west to the Cascades and

Sierra Nevadas. South in winter to Lower California and Mexico.

The mountain bluebird, as its name implies, inhabits the higher parts of its range, living mostly in the interior arid districts of the West and in the mountains up to fourteen thousand feet. It is a common bird in eastern Washington and Oregon, and throughout the foothills and mountains of California as far south as the San Bernardino Mountains. It comes about the ranches and builds its nest in any convenient hole or crevice in tree or building and often in bird boxes.

The exquisite coloring of the mountain bluebird makes it one of our most beautiful birds. It has all of the winning ways of other bluebirds, the same soft warble, the same dainty manner of lifting its wings as it alights, and the same butterfly-like habit of hovering close to the ground when in quest of some insect it spies in the grass.

The mountain bluebird is especially attractive in its favorite haunts in the high mountains. Here it may be seen in flocks about the mountain meadows, flying back and forth, stopping on its way to hover, almost motionless, in midair as it sees something below, sometimes dropping lightly to the ground to seize some dainty insect morsel. In the fall

the young are seen with the parents, in their soft gray plumage, with only a hint of blue, and speckled breast.

The mountain bluebird is rarely found in the coast valleys although it sometimes follows the Columbia River gorge in its wanderings towards the sea and may be seen in the burns along the mountain sides high above the river.

761a Western robin, *Planesticus migratorius propinquus.* 10.50

Distribution: Western North America from the Rocky Mountains to the Pacific Coast, north to the limit of the Coast forest district of Alaska (including Islands), south to southern end of Mexican plateau, occasionally to highlands of Guatemala.

The robin is perhaps the most abundant and conspicuous of all our western birds. It is found everywhere from sea level to high mountains, both in timbered and cultivated areas. It comes about the home in the same friendly manner as does its robin cousin of the eastern states, building its nest in all sorts of places, in vines and shrubbery about the porch, in orchard and shade trees or in tall firs in the wood-lot. It preys upon the insects in trees and garden, and in this respect is

highly beneficial to growing crops and should be protected, though it makes occasional raids on cherries and strawberries, causing some damage at certain seasons of the year.

Although the robin is very tame and approachable during the breeding season it seems to change its nature in the fall, after family cares are over, and frequents heavy timber where it gathers in flocks to roost at night, to sally forth in the early morning, scattering out over the surrounding country in search of food. While the western robin, as a species, is highly migratory and moves south at the approach of cold weather, large numbers remain to winter in the protected valleys of the northwestern states. It is probable however that the winter robins of Washington and Oregon are the summer birds of farther north, and that our own summer robins spend the winter in the sunshine of southern California.

763 Varied thrush, *Ixoreus nævius nævius.* 9.50

Distribution: Western North America; breeding from northern California northward to the limit of spruce forests in northern Alaska; wintering from Kadiak Island southward to southern California, and during

migrations straggling eastward to Montana, Kansas, New Jersey, New York and Massachusetts.

The northern varied thrush, a closely related sub-species, is found from the Yukon Delta south to northeastern Oregon in the mountains.

The varied thrush, Alaska robin, winter robin, or Oregon robin as it is variously called, is a bird of the heavy timbered areas. It is a frequenter of deep woods, of shady fern-clad hills and alder bottoms. It lives near the ground where it seeks its food, turning over the dead leaves in search of fat worms and slugs. When the snow gets deep in the mountains it comes down into the valleys to pick at the frozen apples that may be hanging on the trees, or turn over the big maple leaves with a quick flirt of its bill to seize the benumbed insects that are found there.

At this time of year the varied thrush may be found along the edges of woods roads or fields where it watches one furtively from its perch on bush or limb. Its orange yellow breast and black collar make its identification easy. Its nest is usually placed in small firs on a limb close to the body of the tree. It is a large bulky nest made of twigs, leaves, grass and green moss. The varied thrush is a

mountain bird in the summer, leaving the valleys in May to nest well up in the timbered slopes of the Coast and Cascade Mountains. Its song is a clear, vibrant whistle given in a minor key and in a descending scale. It has a melancholy strain about it that is hard to describe. As the song floats down from the top of a giant fir in the mountains it has all of the wildness and sweetness of the song of the hermit thrush.

758 Russet-backed thrush, *Hylocichla ustulata ustulata.* 7.25

Distribution: Pacific Coast region from Alaska south to Lower California. Migrating in winter south through Mexico and Central America to northern South America. Abundant summer resident on the Pacific Coast from sea level to high mountains. Two closely allied species are; willow thrush of British Columbia, Alberta and Manitoba south to Central Oregon, Utah and Iowa; and the olive-backed thrush, found in North and South America and on the Pacific Coast from Alaska south to eastern Oregon.

The thrushes live in the deep woods where the ground is carpeted with moss and ferns. The dozen or more species that live in the west are alike in their fondness for thickets

of alder and vine maple along streams and for the heavily wooded hills and mountain sides. The delicate browns and grays of their plumage blend perfectly with their chosen haunts. They flit silently from place to place in the semi-darkness of the deep canyons, and when sitting still on some low perch are invisible against the background of withered leaves.

The russet-backed thrush is the only member of the family that is a summer resident in the valleys along the Pacific Coast. It is commonly found in alder bottoms along streams, in the tangle of fallen tree tops and vines in slashings, along the edges of quiet woods roads and tree bordered fields, and comes freely into the outskirts of towns to live and nest in the shrubbery in the dooryards.

The nest of the russet-backed thrush is made almost entirely of green moss, and is a thick walled structure, lined with fine grass and feathers. It is usually placed in low bushes or ferns.

The characteristic call note of this thrush is a sharp *quit.* Its beautiful tremolo song fills the evening woods and is often heard till nine or ten o'clock at night in midsummer.

759e Sierra hermit thrush, *Hylocichla guttata sequoiensis.* 7.00

Distribution: Breeding in the Sierra Nevada and Cascade ranges from southern California north to Alaska; during migrations southward to Mexico and Lower California, and eastward to western Texas and Wyoming. Three closely allied species are the Audubon hermit thrush of the Rocky Mountain region of the United States (west occasionally to the Cascade Mountains): the Alaska hermit thrush of Alaska, south along the coast in winter to Lower California, and east to western Texas; and dwarf hermit thrush of the coast district of Alaska and British Columbia (and probably also in the western parts of Washington and Oregon), wintering southward through California and Mexico.

The Sierra hermit thrush is a bird of the mountains, usually above five thousand feet, and is found in the valleys only during the migrations in the fall, when on its annual journey to its winter home in the tropics. It lives in damp, densely wooded localities where it builds its nest in some low bush, typical of the thrush family.

The Sierra hermit thrush is considered the finest song bird of the Pacific Coast but only

those who visit its haunts in the high mountains will have the pleasure of hearing it.

FAMILY *SYLVIIDÆ*: KINGLETS, GNATCATCHERS, WARBLERS

748a Western golden-crowned kinglet, *Regulus satrapa olivaceous.* 4.00

Distribution: Western North America from Alaska to California, and from the Rocky Mountains to the Pacific Coast. South in winter to Mexico and Guatemala.

The golden-crowned kinglet is an abundant summer resident in coniferous timber from sea level to high mountains throughout its range, and a common winter resident in all the coast valleys from Puget Sound southwards. During the summer the golden-crowned kinglet keeps well in the big firs that clothe the hills, where their lisping call notes may be heard far overhead as they troop through the woods, their tiny forms and olivaceous coloring making them almost invisible in the dim light of the heavy growth. In the winter, however, they may be found everywhere in mixed woods, frequenting the lower branches of the trees along the edges of

old fields, woods roads and hillsides, where they may be studied easily. At this season of the year they like to associate with chickadees and bush-tits, large numbers of the three families often being seen together in friendly flocks.

As a rule kinglets travel high in bright weather and low in misty or rainy weather. In the winter when the firs are bending low with their load of wet snow the kinglets may be seen creeping over the snow picking up tiny insects, sometimes dozens of them on one small tree talking to each other in cheery tones and seemingly regardless of an observer's near presence.

The golden-crowned kinglet builds a beautiful nest of green moss and vegetable fibers, concealing it in a dense clump of needles of fir or spruce from twenty to one hundred feet from the ground. The ruby-crowned kinglet keeps more to the mountains in the summer than does the golden-crowned, building its nest high in the conifers, and coming down into the valleys on its way south during its migrations in the fall. Its nest is semi-pensile, made of moss, vegetable fibers and plant down, lined with feathers. It is usually placed in conifers from twenty to one hundred feet from the ground.

749 Ruby-crowned kinglet, *Regulus calendula calendula.* 4.00

Distribution: North America in general, in wooded districts, north to the limit of trees from Labrador to Alaska. Breeding south to the middle United States, and wintering in the southern part of the United States, Mexico and Central America. Common in winter in the protected valleys on the Pacific Coast north to Washington. Two closely related species are the Sitka kinglet, found on the Pacific Coast from Alaska to southern British Columbia, south in winter to middle California; and the dusky kinglet of Guadaloupe Island, Lower California.

The ruby-crowned kinglet may be found in company with the golden-crowned and chickadees in second growth woods, and in the tangle of alder and vine maples along streams. Its call or alarm note is a sharp *chit-it, chit-it-it* which together with its peculiar habit of daintily "flicking" its wings as it moves nervously from branch to branch, makes its identification easy. The song of the ruby-crowned kinglet is a gem of bird music. It begins with a series of rapidly uttered couplets low and quavering, and ends with two or three sets of triplets. It is such a fascinating

song, so distinctive and unusual, as to be always remembered.

FAMILY *TROGLODYTIDÆ*: WRENS

719e Seattle wren, *Thryomanes bewicki calophonus* 5.00

Distribution: Pacific Coast district of British Columbia, Washington, and Oregon. The Vigors wren, Baird wren, San Diego wren, San Clements wren and Guadeloupe wren are closely related species of California and the southwest.

The Seattle wren is the largest of the family in the northwest and may be distinguished from any other wren in its range by the distinct white line over the eye. It may be found everywhere from sea level to the Cascades in heavy timber, in the dense mixed woods along streams, along the edges of woods roads in the tangle of logs, vines and brush, and about the farms in the brushy fence rows and overgrown pastures.

The song and call notes of the Seattle wren are quite different from the other species. It has an alarm note that is almost explosive in its suddenness, a rasping scolding note and two or three different songs according to the season of the year. The song is loud and

clear and may be heard a long distance away. In the Puget Sound district this bird has what is called its "waterfall song," a beautiful liquid trill of a dozen notes, uttered rapidly, in a descending scale, and unlike the song of any other bird in the Northwest.

The Seattle wren is a shyer bird than the house wren and keeps closer to the thickets where there is shelter in which to dive when danger threatens. Its nest is tucked into any convenient nook or corner about old buildings, in hollow logs and cavities in trees. It seldom accepts a bird box, preferring the shelter of the woods rather than the disturbance and noise about dwellings.

Although the Seattle wren is more or less migratory it is found most of the year throughout its range, living in the dense woods during cold weather, though often appearing in the open glades to whistle a low sweet song when the sun breaks through the wintry clouds.

721a Western house wren, *Troglodytes ædon parkmani.* 4.75

Distribution: Western United States and Canada from British Columbia, Alberta and Manitoba south to Mexico, and from the Mississippi Valley to the Pacific Coast.

The western house wren resembles its cousin of the East in both habits and song, and lives the same jolly life in the midst of its chosen surroundings of tangle and brush pile, or in the shrubbery about the home. Wherever there is thick cover in which to range, there it will be found, from sea level to mountain top. It is particularly fond of brush-grown fence rows along the edges of old fields where it may be heard singing or scolding by turns as it seeks its food in the tangle, or on the ground running along the lower rail of a fence and in and out amongst the weed stalks like a mouse. The song is a bubbling, rollicking performance that goes on incessantly from daylight until dark, interspersed with much scolding if an intruder happens on its hunting grounds or comes too near its nest. The nest of the house wren is a bulky mass of twigs, grass and weed stems, lined with moss and feathers and placed indifferently in natural cavities in trees, in old woodpecker holes, in cracks and crannies about old buildings, and often in bird boxes. The house wren is frequently found as far north as the Columbia River during the winter although most of the family migrate to the southern border of the United States in the fall.

722a Western winter wren, *Nannus hiemalis pacificus*. 4.00

Distribution: Western North America from southern Alaska to southern California, and from Montana, Idaho, Nevada, and Colorado west to the Pacific Coast; wintering southward to southern California.

The winter wrens live for the most part in deep shady woods where there is a tangle of fallen tree tops and mossy logs. There you will see them creeping along in mouse-like fashion examining every crack and cranny in the bark for possible food. When disturbed they will scold with a sharp *chip*, and if you approach too near they will dive into any convenient tangle, to reappear in a moment from the opposite side and watch for your next move.

The winter wren, as its name implies, is more or less a permanent resident in the vicinity of its summer home. During the severest weather it may be found in the shelter of deep canyons, seemingly indifferent to cold or storm.

Its nest is hidden in crevices and holes in hollow logs and stumps and under the overhanging roots of trees. A favorite location for its nest is underneath the end of a projecting log over running water. The nest is composed of all sorts of rubbish wedged into

a huge crack or behind a loose piece of bark. The winter wren is the smallest and brownest of all our wrens and this fact together with its song will distinguish it from all others of the family. Its song is a rippling outburst like that of the house wren but longer sustained and uttered in a higher key. To hear it at its best you must go to the deep woods, to a spot where the sun comes sifting through the leaves overhead, and there on an upturned root the little bird will pour out its melody of happiness and cheer to its mate that is brooding her eggs in some cosy retreat nearby.

725a Tule wren, *Telmatodytes palustris paludicola.* 5.30

Distribution: Pacific Coast region from British Columbia to California, west of the Cascades and Sierra Nevadas.

The tule wren is the marsh wren of the Pacific Coast. It is found in the thick cover of marsh grass and tules along the borders of sloughs, ponds and shallow lakes, where it may be common, although rarely seen because of its shyness. The best way to study its habits is to go in a skiff to its haunts and paddle quietly along the edge of the marsh. It will soon notice your intrusion and begin to scold, bobbing up and down, jerking its tail and

in most positive terms showing its displeasure.

The tule wren has all of the nest building passion of its kind, constructing half a dozen but occupying only one. Its nest is a thick-walled structure made of tule leaves lined with the pith of the stalks and thickly padded with this material. The eggs are purplish brown in color and from five to nine in number.

The tule wren is as full of song as the house wren and during the nesting season the marsh is a medley of little bird voices. They will sing and scold by turns, a comical sight as they cling to some swaying stalk of grass, bubbling over with wrath at your impudence, or with happiness at the thought of the babies tucked away in the round ball of a nest that is hung in the tules a few feet from the water.

Any distinct field markings are lacking in the tule wren, although the back is slightly streaked with white, being different in this respect from other wrens in its territory.

FAMILY *MNIOTILTIDÆ*: WOOD WARBLERS

652c California yellow warbler, *Dendroica æstiva brewsteri*. 4.50

Distribution: From northern Washington to southern California, west of the Cascade and Sierra Nevada Mountains. The Alaska

yellow warbler, a closely related species, is found on the Pacific Slope from Alaska to Vancouver Island, wintering south through Mexico to Nicaragua.

The yellow warbler is the summer yellow bird of the whole United States. It is the commonest of the warblers, coming north in April and May to fill the woods with its cheery song, taking possession of the big maples in town and country where it loves to dwell. Although found from sea level to high mountains it is particularly fond of mixed woods along the edges of old fields and open park-like timber where the sun comes sifting through the leaves to warm the ground beneath. Its song is variously interpreted by different writers, but Chapman renders it as, *wee-chee-chee, chee-chee, chur-wee*, or, *sweet, sweet, sweet, sweet, sweeter, sweeter*, etc.

The yellow warbler is the most persistent singer of all the family and no summer day is complete without its music floating in from the tree tops. Its nest is placed in small bushes and trees, sometimes in willows along streams.

681c Pacific yellow-throat, *Geothlypis trichas arizela.* 4.70

Distribution: Pacific Coast region from British Columbia to southern California, east

to the Cascades and Sierra Nevadas. South in winter to Mexico and Lower California. The western yellow-throat, a closely related species, is found from the Mississippi Valley west to the Cascades and Sierra Nevadas; wintering in Central America.

The Pacific yellow-throat is a bird of the marsh and wet meadows, of brush-grown pastures, and of the tangle of weeds and vines along railroad cuts and rail fences. It loves the protection of the tall grass that grows by the side of ditches and here it usually builds its nest near the ground well hidden by the thick cover. The black domino worn by the Pacific yellow-throat, together with its distinctive song will easily identify this from all other warblers of the West. Its song is variously interpreted by different observers but may be rendered as, *witch-a-wee-o, witch-a-wee-o, witch-a-wee-o, witch.* One enthusiastic bird student seemed to hear it say, "Willie-come-ere, Willie-come-ere, Willie-come-ere, Willie."

685b Golden pileolated warbler, *Wilsonia pusilla chryseola.* 4.25

Distribution: Pacific Coast district of the United States and British Columbia. Wintering in southern California and Mexico.

The pileolated warbler is a closely related species found in all of the western country from Alaska to Arizona and from the Rocky Mountains to the Pacific. Less common than the former along the coast.

The golden pileolated warbler lives in the thickets of alder and vinemaple along streams, thick damp woods, along the edges of woods roads and in the tangle of brush and vines that line the deep canyons. Its quiet song of four or five notes is uttered in a descending scale and is not distinctive. Its black cap is a certain field mark since no other of the yellow warblers has it. The golden pileolated warbler is an abundant summer resident throughout its range but keeps so close to cover as to escape observation unless one is watching for it. Its nest is of the usual warbler type usually placed in bushes near the ground.

646a Lutescent warbler, *Vermivora celata lutescens.* 4.30

Distribution: From southern Alaska to Mexico, and from the Rocky Mountains to the Pacific. Abundant summer resident of the Pacific Coast district; wintering in southern Mexico and Central America.

The lutescent warbler is common every-

where from sea level to high mountains, but is most often found in second growth woods, and is particularly abundant on brush-covered hillsides, along woods roads and about the edges of old fields in the lower branches of the trees. It is the earliest of the warblers to come north in the spring, appearing in the northern part of its range by the first of March.

The lutescent warbler is the plainest of all our western warblers and lacks any distinctive markings. It is an olive green bird above and pale olive yellow below, with yellowish eye ring and a dull orange patch on crown, which is covered by tips of adjoining feathers. Its very plainness together with its beautiful song, a long, well-sustained trill of a dozen or more notes, will distinguish it from any other warbler. The song is uttered rapidly and ends either in an ascending or descending scale. The nest is placed on the ground at the foot of a bush, usually in deep woods on a hillside.

665 Black-throated gray warbler, *Dendroica nigrescens.* 4.40

Distribution: From British Columbia to Mexico and from the Rocky Mountains to the Pacific Coast. Abundant summer resi-

dent of the Pacific Coast. Wintering through Mexico to Central America.

The black-throated gray warbler is abundant throughout its range from sea level to high mountains in both coniferous timber and mixed woods. It keeps more to the upper branches than do most of the warblers, especially in bright weather but comes down into the lower branches and undergrowth in misty or cloudy weather. It has striking black and white, lengthwise streaked plumage making it easily recognized among all our western warblers, except Townsend's, which it resembles in general appearance at a distance, but which, when seen closely will not be confused with it. The song of the black-throated gray warbler is an indistinct medley of notes resembling that of both the Townsend and hermit, except in the ending, which has a *zee, zee* quality that is distinctive and may be recognized as far as it is heard. The nest is placed in some conifer from twenty to fifty feet from the ground.

680 Macgillivray warbler, *Oporornis tolmiei.* 5.00

Distribution: From British Columbia to southern California, Arizona and New Mexico and from the Rocky Mountains to the

Pacific. An abundant summer resident along the Pacific Coast. Wintering throughout Mexico and Central America to northern South America.

The Macgillivray warbler, like the lutescent, lives near the ground, frequenting brush-covered hillsides, thickets of vine maple and alder and the tangle of logs and vines along woods roads, and streams and swampy places. Its slate-gray head and neck, and peculiar ventriloquial song are distinctive and will aid in its identification. The nest is placed in the tangle of vines and brush near the ground.

656 Audubon warbler, *Dendroica auduboni auduboni.* 5.00

Distribution: Western North America from British Columbia to southern California, Arizona and New Mexico, and from the Great Plains to the Pacific Coast. Wintering south to Guatemala.

The Audubon warbler is the commonest and most distinctive of all our western warblers. It is found from sea level to high mountains throughout its range, both in mixed woods and coniferous timber. It may be seen along the edges of old fields in second growth woods, in fruit orchards where it is

abundant during blossoming time, catching the tiny insects that swarm about the blooms, and along woods roads on the hills and in the valleys. The Audubon warbler is a restless little bird, ever on the wing, darting from tree to tree in pursuit of flying insects or chasing its fellows in and out among the trees and bushes in a ceaseless game of tag. With spread tail and fluttering wings its movement reminds one of a butterfly as it fairly dances from the top of one tree to another. It may be distinguished from all other of the western warblers by its five yellow patches on crown, throat, sides and rump. The song of the Audubon warbler is one of the earliest heard in the spring. It is loud and clear, with many variations, and may be heard a long way off. Its favorite perch when singing is the highest point on some conifer or other tall forest tree. Although the warblers as a group are highly migratory, most of them leaving the United States entirely in the winter, the Audubon warbler may be found in large numbers in the winter as far north as southern British Columbia. In their winter dress they retain only the yellow rump patch and in this grayish garb they go about in small flocks seeking their living in weedy old fields and along roadsides.

The nest is usually placed in small firs about twenty-five feet from the ground. It is rather a large nest for a warbler, loosely built, and composed of fir twigs, weeds, rootlets, moss and dry grass, lined with hair and feathers.

683a Long-tailed chat, *Icteria virens longicauda.* 6.75

Distribution: Western United States from the Great Plains to the Pacific Coast, and from British Columbia to southern Mexico. Wintering in Mexico and Central America.

The long-tailed chat is the largest of the warblers and very unlike any other member of the family. It makes its home in dense thickets and in the tangle of vines and brush in swampy places. No other warbler, and few birds of any kind, possess the individuality of the chat. Its form, call notes and habits are all pronounced and characteristic making it one of the most interesting birds in the world. No other small bird has such a vocabulary of call notes, gurgles, chuckles or imitations of other birds. It is *chut, chut, chut,* or *quoort, quoort, quoort,* and again, *whew, whew, whew,* and sometimes a *kee-yuk;* then a series of hawk or jay notes startling in their suddenness and close imitations. Its presence

is usually made known by a sudden *chut, chut, chut,* from out the depths of a marshy place. After this introduction it will follow with a number of its various call notes. It is a very shy and suspicious bird and at the least sign that it is being watched, will dive into the underbrush and slink away in silence. It sometimes bursts into an ecstasy of song and will jump into the air fluttering its wings and warbling in a delightful manner. The nest of the long-tailed chat is hidden in the center of some thicket close to the ground. It is made of dead leaves and fine grass and lined with finer grasses.

668 Townsend warbler, *Dendroica townsendi.* 4.50

Distribution: Western North America from southern Alaska to southern California, and from the Great Plains to the Pacific Coast. Abundant summer resident of the Pacific Coast states, thinning out eastward. During migrations to Colorado, western Texas and south to Guatemala.

The summer home of the Townsend warbler is in the heavy timber that clothes the hills and mountain ranges. Its weak song comes drifting down to one from the tops of tall firs and only once in a while will one catch

a glimpse of the bird itself as it flits from the top of one tree to another. Occasionally it will come down near the ground to feed in the lower branches of the trees. At such times it fairly dances from bush to bush with wings a-flutter and tail spread wide, showing the white outer tail feather. In action it resembles the Audubon warbler with all its butterfly-like traits.

There is nothing distinctive about the Townsend warbler by which it may be easily identified, except the triangular black patch enclosing the eye, surrounded by the yellow on the side of the head. During the fall migrations these marks have a faded appearance, the males, females and young of the year looking very much alike. The nest of the Townsend warbler is rarely found. It is reported as being placed in bushes and in firs well up from the ground.

669 Hermit warbler, *Dendroica occidentalis*. 4.50

Distribution: From British Columbia to southern California, and from the Rocky Mountains to the Pacific Coast. Abundant summer resident throughout its range in coniferous timber. Wintering south of the United States in Mexico and Central America.

The hermit warbler is found along with the Townsend in the same kind of woods, usually high in the firs but sometimes showing itself on the lower branches of the mixed woods, or along the edges of quiet woods roads in the tangle of alder and vine maple. It seems to be far commoner than the Townsend warbler, frequenting the fir-clad hills in all parts of its range and swarming through the valleys during the spring and fall migrations. The hermit warbler shows to best advantage in the firs, its bright yellow head, black throat and white underparts making a striking picture against the background of greenery. It may be easily distinguished from all other of our western warblers by its unusual coloration. While the hermit warbler is quite common in many localities it keeps well to cover and must be diligently sought for by the bird student who wishes to become familiar with it in its native haunts.

The song of the hermit warbler is varied. In some cases it resembles that of the black-throated gray, again that of the Townsend warbler, but it has a very peculiar and distinctive song of its own that, when once heard, will never be forgotten. If set to words it would say, *see here, see here, I see you.* The first four notes are given in couplets, and in a

sharply ascending scale, the last three in a sharply descending scale. The song is entirely different from that of any other western warbler and as it comes floating down from the top of some giant fir in the big woods its unusual cadence will instantly attract the attention of those whose ears are attuned to bird music.

The nest of the hermit warbler is placed in all sorts of locations from small trees along mountain streams to high conifers in the mountains.

FAMILY *VIREONIDÆ*: VIREOS

627a Western warbling vireo, *Vireosylva gilva swainsoni.* 5.00

Distribution: Western United States and British Columbia south to Mexican border, and from the Rocky Mountains to the Pacific Coast. South in winter through Mexico. An abundant summer resident on the Pacific Slope. Two closely allied species include the Hutton vireo of California, Oregon and Washington west of the Cascades and Sierra Nevadas; and the red-eyed vireo that is rarely (and irregularly), found in the Sierras and Cascades from California to northern Washington.

Vireos are not confined to any particular kind of woods. They seem to be everywhere. If you go to the seashore they are there in the thickets of manzanita and lodge-pole pine. If you journey to the mountains you find them filling the big woods with their song. But they are most abundant in the valleys, living in the heavy timber that covers the hills, in the thickets of alder and vine maple in the canyons or in the deep woods that skirt old fields and quiet country roads. They are common in parks where they build their nests in dogwood and hazel along steep banks; and they inhabit the trees and shrubbery of vacant city lots, peering at you from the overhanging limbs while searching the underside of leaves for tiny insects.

Vireos are so nearly the color of the greenery in which they live that it is often difficult to see them, and since their plumage lacks distinctive markings one must rely on the song for identification unless one can observe them at arm's length.

629a Cassin vireo, *Lanivireo solitarius cassini.* 5.25

Distribution: Pacific Coast district of the United States and British Columbia, south to southern California, and east to Idaho,

Wyoming and Utah. South in winter to the western part of Mexico. An abundant summer resident of the Pacific Coast states.

The white line over the eye and absence of wing bars will identify the warbling vireo, while the ring around the eye and distinct white wing bars will indicate the Cassin vireo.

The Vireos comprise a very compact and well-defined family of about one hundred species that are confined to the western hemisphere. About twenty species visit the United States in the summer, ranging northward to the Canadian Provinces. They are noted for their musical ability and on this account are among the most delightful of all the smaller birds of our country. The song of the warbling vireo is loud and clear with a rhythm that carries you with it. That of the Cassin vireo seems to talk to you out of the deep woods and seems to say, *I see you, do you see me? I do, do you?* During the nesting season they sing incessantly and dominate the woods with their melody, and both sexes sing while sitting on the nest during incubation.

The nest of the vireo is a dainty basket hung by the edges to a slender fork in tree or bush, usually in dogwood, alder or hazel on the side of a steep bank. It is a thick-walled, well-woven structure of various vegetable

fibers, lined with plant down and feathers and other soft materials. When the wintry blasts have cleared the trees of leaves their nests may be found everywhere along woods roads where they have remained well hidden among the greenery during the nesting season.

FAMILY *PARIDÆ*: TITMICE

735b Oregon chickadee, *Penthestes atricapillus occidentalis.* 5.00

Distribution: Pacific Coast district from Alaska to California west of the Cascade Mountains. Three closely allied species include the long-tailed chickadee of western North America from Alaska south to eastern Oregon; mountain chickadee, found from central British Columbia south to southern California and Arizona; and the Bailey mountain chickadee, breeding in the mountains of southern Oregon, eastern California, to Lower California.

The Oregon chickadee is found everywhere in its range from sea level to high mountains. It seems equally common in coniferous timber and mixed woods. Its favorite haunts are thickets of vine maple and alder along streams, brushy hillsides grown up to dogwood and hazel, or the borders of woods

roads. The Oregon chickadee prefers the lower branches of the trees and may be found trooping through the woods, often in company with kinglets and bush-tits, peering into crevices and holes in trees or tearing open the rolled up leaves and cocoons in search of fat grubs.

The gray and black of its plumage blends so well with its surroundings that the Oregon chickadee is often hard to see against the mottled bark of its favorite alder and dogwood trees, but its distinct whistled song of three notes, or its *chickadee, dee, dee, dee,* call notes will help to identify this species.

The Oregon chickadee is resident wherever found and because of the nature of its food supply is able to exist in the coldest weather. It has the habit of using its last year's nesting hole to sleep in during cold nights, several birds often occupying the same hole together. The Oregon chickadee builds its nest in natural cavities in trees, old woodpeckers' holes or bird boxes. Large quantities of warm materials are gathered to fill the bottom of the cavity, the lining being usually bits of animal hair of various kinds and feathers. The tiny eggs number from five to nine. They are pure white, thickly dotted with reddish brown.

741 Chestnut-backed chickadee, *Penthestes rufescens rufescens.* 4.75

Distribution: Pacific Coast district from Alaska south to northern California, east to Idaho and Montana. Two closely related species found in California are the California chickadee and the Barlow chickadee.

The chestnut-backed chickadee is a bird of coniferous timber, living in the upper branches of the trees where it spends much of its time pecking at the cones of the Douglas fir. In the summer it seems to keep well to the heavy timber along the crests of the hills, coming down into the valleys in the fall and winter to feed in the lower woods and underbrush along with the bush-tits and kinglets but rarely mixing with the Oregon chickadee in its wanderings.

The chestnut-backed chickadee may be distinguished from the Oregon by its smaller size and the well-defined rufous brown of its back and sides. Both its song and call notes are weaker than those of the Oregon chickadee. The song has more of a wiry quality, and the *chickadee-dee* notes are far less pronounced. When a flock of chestnut-backs, kinglets and bush-tits are ranging through the tree tops together it is often difficult to

tell them apart on account of the resemblance of their lisping call notes.

The nesting habits of the chestnut-backed chickadee are in all respects like those of the Oregon chickadee.

743 Bush-tit, *Psaltriparus minimus minimus.* 4.25

Distribution: Pacific Coast region from Washington to Lower California; and from the Cascades and Sierra Nevadas to the Pacific. The California bush-tit of California, except on the northwest coast, and the lead-colored bush-tit of eastern Oregon, to Wyoming and south to Arizona, Texas and California are closely related species.

The bush-tit is found everywhere from the mountains to the sea but mostly in open country away from heavy timber. One may expect to see it along the edges of woods roads in second growth timber, and in the tangle of fallen logs and brush in slashings and cut-over lands. Then too the brushy slopes of deep canyons afford cover for these little gray birds as they go trooping from place to place in search of food. They may be seen clinging head downwards in true titmouse fashion as they examine every curled leaf or cocoon for a possible chrysalis

or grub, all the while keeping up a subdued conversation in lisping tones that reminds one of the kinglets. Late in the summer, when the nesting season is over, bush-tits may be seen in large flocks, probably several families united, wandering about the country, flitting across the road ahead of one or clinging to the side of gravel pit or cut bank searching the tiny crevices for insects.

In the winter bush-tits are found in company with chickadees and kinglets moving through the woods in leisurely fashion, calling to one another in cheery notes, seemingly indifferent to cold or stormy weather. The nest of the bush-tit is a purse-shaped affair about ten inches long, woven of vegetable fibers and moss and hung to the swaying slender end of fir or hemlock bough, or placed in a bush along the side of some steep canyon. The entrance is near the top, often so small that the little bird has to wriggle in and out like a mouse. The tiny eggs are five to nine in number.

FAMILY *CHAMÆIDÆ*: WREN-TITS

742b Coast wren-tit, *Chamæa fasciata phæa.* 5.00

Distribution: Coast counties of northern California and Oregon to the Columbia River,

between the mountains and the sea. The pallid and the ruddy wren-tits are found in California and the southwest.

The coast wren-tit is found in the dense growth of salal, manzanita and lodge-pole pines that clothe the ridges along the coast. It delights in the thick cover from which it rarely shows itself except to dart from one dense patch of brush to another in its travels. One's first introduction to this queer yet delightful little bird is usually a sharp scolding on the part of the wren-tit that sounds like the wooden rattle that the small boy whirls in his fingers. Then one may hear a queer tremolo whistle that sounds like the subdued quaver of the screech owl. The call will probably be taken up and repeated by several other tits from different directions, the whole performance being very unusual in bird life. The song may be described as *keep, keep, keep, keep-it, keep-it, keep-it,* running down the scale, starting slowly and ending in a trill. And another song may be rendered, *pee, pee, pee, peep, peep, peep, peep,* in a slow and monotonous tone. The nest is described by Finley as well made and deeply cupped, resembling that of the lazuli bunting. It is usually well hidden in low brush.

FAMILY *CERTHIIDÆ*: CREEPERS

726c California creeper, *Certhia familiaris occidentalis.* 5.00

Distribution: From central British Columbia south through central Washington, Oregon and California to the mountains of Los Angeles county. Two closely allied species are the tawny creeper found along the humid coast district from northern California to southern Alaska, and the Sierra creeper of the Cascade and Sierra Nevada mountains of Oregon and California.

The creepers are quiet little brown birds that spend their lives examining the rough bark of the big forest trees for food. This they do by climbing spirally up the tree to the large branches and then flying to the bottom of the next tree nearby to repeat the performance.

They have a weak lisping call note that can be heard but a short distance away, and are said to have a short sweet song of four notes, which only a few observers have been fortunate enough to hear. Their small size, brownish striping, long slender curved bill and creeping habits will aid in identifying the creepers. They usually build their nests behind a loose piece of bark from twenty to fifty feet from the ground.

FAMILY *SITTIDÆ*: NUTHATCHES

727a Slender-billed nuthatch, *Sitta carolinensis aculeata*. 5.50

Distribution: Pacific Coast district from interior of British Columbia to northern Lower California and east to the Cascades and Sierra Nevadas. The Rocky Mountain nuthatch, a closely related species, is found in the interior of North America west as far as the eastern base of the Cascades and Sierra Nevadas.

The slender-billed is the largest of the western nuthatches and may be distinguished from the other species by its white underparts, bluish gray upper-parts and black cap. Its peculiar *yank, yank*, call note, uttered in a deliberate manner, is a good clue to its identity. During its cross country trips from ridge to ridge it may often be seen about the orchards and wood-lots in the valleys busily engaged in searching the rough bark of the trees for small insects.

728 Red-breasted nuthatch, *Sitta canadensis*. 4.50

Distribution: Forest districts of northern North America and higher mountains of the United States, from Labrador and Alaska south to middle United States.

The red-breasted nuthatch is a smaller bird than the slender-billed and may be distinguished by its reddish brown sides and breast and white line over the eye. Its nasal *yank, yank,* is also uttered more rapidly and in a higher key. It wanders from tree to tree in the restless manner of its kind, running up a tree spirally and going out on the big limbs, sometimes to the very tips, often hanging head downwards like a chickadee, while it examines the clusters of fir needles for food.

730 Pygmy nuthatch, *Sitta pygmæa pygmæa.* 4.20

Distribution: Mountains of western North America and Mexico, north to British Columbia, and from the Pacific Coast east to Montana, Wyoming, Colorado and New Mexico. The white-naped nuthatch, a near relative, is found in southern California in San Diego County, south into Lower California.

The pygmy nuthatch lives in the mountains and only rarely comes down into the valleys. Only those who go to its haunts will make its acquaintance. Its small size and the white patch on the back of its neck will serve to identify it.

The nuthatches are small, soft-plumaged, square-tailed little birds that spend their lives running up and down the tree trunks looking for food. All of them are denizens of the forests, usually keeping well to the big woods where they lead a more or less solitary life. One seldom sees more than half a dozen together and then it is probably a family party. In the winter however they often congregate in good-sized flocks to wander about in search of food during the day, and sleep together in old woodpeckers holes at night. One observer counted twenty-one pygmy nuthatches coming out of one hole in the early morning.

Nuthatches build their nests in natural cavities in trees, old woodpeckers' holes and in holes which they dig for themselves in decayed trees.

The nests are lined with bits of wool, plant down, feathers and the brown fuzz gathered from the stems of ferns. The five to nine tiny eggs are pure white thickly speckled with reddish brown. After leaving the nest the young follow the parents about begging for food, and a party of them perched on the top of an old snag holding an animated conversation in nuthatch language is an interesting sight.

FAMILY *CINCLIDÆ*: DIPPERS

701 Dipper (Water ouzel), *Cinclus mexicanus unicolor.* 7.75

Distribution: Mountains of western North America from near tree limit in northwestern Alaska, northeastern British Columbia, and west central Alberta south to northern Lower California and southern New Mexico; accidental in the Black Hills, South Dakota and in western Nebraska. Resident wherever found.

The dipper, or water ouzel, belongs to one of the most unique as well as one of the smallest families of birds in the world. The family has been traced back to its probable home in the high Himalaya Mountains of northern India from whence it spread over the mountainous districts of the world. Five species are found in the western hemisphere, one in North and four in South America. It is found only in the vicinity of rushing mountain streams in which it lives and finds its food supply.

Its plumage is a soft lusterless gray, very compact and practically waterproof. The body has also a secondary coat of oily down like that on typical water birds, and this marks it as unique among strictly land birds.

The eye is provided with a nictitating membrane, or third eyelid, which protects it from injury in its underwater journeys.

The dipper is common in the mountains of the Pacific Slope, in many places following the streams down to the foothills where it may be seen darting ahead of the fisherman as he works upstream, or standing on a water-worn boulder bobbing up and down in its peculiar fashion. The relationship of the dipper to other families has been in dispute for many years but its resemblance to the wrens is striking, and its bobbing and attitudinizing is very wren-like.

The dipper has strong feet and sharp claws with which it is enabled to walk deliberately into swift water and disappear without effort, using its wings to fly under water. It will appear up or down stream fifty or more feet from where it went in, quietly step out of the water to rest a minute and then plunge in again. No water seems too swift or rough for it to enter. Its food consists of minute marine life such as periwinkles and the like which it collects from the bottom of the streams. Fishermen claim that it destroys the eggs of the brook trout but this has yet to be proven.

The dipper is one of the most interesting and delightful of all the small birds of the

West. Its song is a bubbling warble, long sustained and clear, louder than that of the winter wren and closely resembling it. John Muir recounts many interesting tales of the water ouzel, which he studied and learned to love in the mountains of California. He tells of seeing them swimming under the thin ice from one air hole to another in the high Sierras, and Grinnell records the same thing in other places.

The nest of the dipper is a round ball of green moss with its entrance hole on one side, placed in a crevice in the rock over water, and often near or behind a waterfall where the spray is always keeping it wet. Where it is placed behind a waterfall the ouzel will dash right through the spray to reach it.

FAMILY *TROCHILIDÆ*: HUMMINGBIRDS

433 Rufous hummingbird, *Selasphorus rufous.* 3.50

Distribution: Western North America from Alaska to southern Mexico, east during migrations to Montana, Wyoming, Colorado and western Texas, wintering in Mexico.

The hummingbirds comprise one of the most wonderful as well as one of the largest

families of birds in the world. Nearly six hundred species are known, all peculiar to the western hemisphere. Their center of distribution lies in Ecuador and Colombia in South America where they are found from the lowest jungle to the crests of the high Andes. Of the total number only about eighteen species visit the United States, most of whom only come over the border from Mexico into Arizona, New Mexico and southern California. Only one, the ruby-throat, is found east of the Mississippi River. The rufous humming-bird is found in the summer from southern Mexico to southern Alaska while the black-chinned, Calliope and the broad-tailed hummingbirds are found more or less commonly from British Columbia to Mexico, and the Anna, Allen and Costa hummingbirds are confined to the Southwest.

The rufous hummingbird is the most widely distributed and the most abundant of all the hummingbirds of the West. It comes North early in the spring, reaching the northern border of the United States by the first week in March. It seems to time its arrival with the blooming of the wild currant. The males are the first to arrive and they may be found along the crests of the hills, sometimes dozens together, sitting in the bushes preening their

feathers or chasing each other about with an angry buzz or twitter. By the first of April rufous hummers are common everywhere, buzzing about the dooryards, probing the flowers, darting at some winged intruder with an angry squeak or investigating possible nesting sites.

Its nest is placed in all sorts of situations on vines, bushes and trees but its favorite nesting site seems to be on the swaying slender end of a hemlock or cedar bough at varying heights from the ground. It is a tiny cradle composed of spider web and plant down and other silky vegetable fibers. The outside is covered with small lichens making the nest appear like a small knot on the limb. It is about the size of half an eggshell. The eggs are always two in number and pure white. These when hatched disclose two of the ugliest little birds imaginable, blind, naked and more like insects than birds. They are fed by regurgitation, a frightful looking operation, and leave the nest in from fourteen to twenty days, beautiful full fledged hummers, ready to follow their parents back to the tropics.

By the first of October the hummingbirds are flocking south and they may be found by scores, the males and females and the young

of the year, all busily engaged in dipping into the flowers for honey or tiny insects.

At such times they are unusually tame and one can study them at close range. By the middle of October they have retired from the northern part of their range to southern California and beyond.

FAMILY *CAPRIMULGIDÆ*: GOATSUCKERS

420d Pacific nighthawk, *Chordeiles virginianus hesperis*. 9.00

Distribution: Pacific Coast district and eastward to the Rocky Mountains, and from British Columbia south to Nevada and Utah, and to southern California; an abundant summer resident of the Pacific Coast states.

The nighthawk, or bullbat, belongs to a world-wide family of about one hundred species. They are curious looking birds with the horny part of their bills short and weak, and a wide gaping mouth that opens behind the eye. The mouth is surrounded with long stiff bristles which act as a fly trap when the bird is flying through the air in pursuit of the winged insects upon which it lives.

Nighthawks are familiar objects in the evening sky during the summer as they pass

with irregular flight over town and country in search of an evening meal. They are dark-plumaged birds, barred and streaked with whites and grays and browns in intricate patterns, and they show conspicuous white wing patches as they soar overhead in the twilight. Their peculiar screeching cry and hollow booming sound are characteristic noises of hot summer nights.

The nighthawk is highly migratory, coming from its home in the tropics in May and June, going as far north as British Columbia to spend the summer and returning South again about the first of October.

The nighthawk lays its two oblong, even-ended eggs on the bare ground in open places in fields, pastures and hillsides, and sometimes on a flat rock or boulder, or in the gravel on a beach near water. The eggs have a marbled appearance, being blotched and streaked with varying shades of lavender, grays and blackish brown, blending perfectly with their surroundings.

FAMILY *MICROPODIDÆ*: SWIFTS

424 Vaux swift, *Chætura vauxi.* 4.30

Distribution: Pacific Coast region from Alaska to Lower California; rare east

of the Cascades and Sierra Nevadas. Migrating to Mexico and Central America.

The Vaux swift is confined almost exclusively to the Pacific Slope and is a bird of the mountains rather than of the valleys. It is rarely seen in any numbers, a dozen or more being considered a large flock. At times it may be seen by twos or threes sailing over the open country on the way from one high ridge to another, and at certain places along the Columbia River it may even be called common. In California it is reported as being common in the coast districts from San Francisco Bay northward.

In coloration the Vaux swift is sooty brown instead of the sooty gray of the chimney swift. Vaux swifts may be distinguished at a distance from the swallows by the peculiarity of their flight. The narrow crescent-shaped wings move with a rapid bat-like motion, alternating several wing beats with a swift gliding movement, darting here and there with incredible speed. When in the mountains observers have noticed the swifts circling close overhead as if curious about the intruders, and occasionally they will come close to the ground in the open country, beating about over the fields in a curious zigzag manner.

The Vaux swift builds a tiny saucer-shaped nest of small twigs plastered together with the sticky saliva, secreted so abundantly by the bird, and is usually fastened to the inside of a hollow tree. Of late years however it has been reported as nesting in chimneys like its cousin of the eastern states.

FAMILY *HIRUNDINIDÆ*: SWALLOWS

612 Cliff swallow, *Petrochelidon lunifrons lunifrons.* 5.50

Distribution: Nearly the whole of North America. Abundant summer resident on the Pacific Coast. South in winter over Mexico, Central America and most of South America.

The cliff swallow, eave swallow, or mud-dauber, is seen in great numbers in the farming districts, circling about the big red barns, snapping up the flies that are so common there and building its nest under the overhanging eaves. The nest is a gourd-shaped affair with the neck slanting downwards. It is made of mud and lined with grass and feathers. This swallow formerly cemented its nest to the perpendicular face of cliffs but since the advent of man with his numerous buildings it has changed its habits, and its

name as well, and is commonly called the eave swallow. The brownish plumage, squarish tail and buffy forehead are the distinguishing field marks of this species. The call note, too, is quite different from others of the family. It is a peculiar purring note, easily remembered if given careful attention. It is interesting to know that each species of swallow has its own distinctive call note which a careful student learns to recognize without seeing the bird as it flies overhead.

614 Tree swallow, *Iridoprocne bicolor*. 5.75

Distribution: North America in general; on the Pacific Coast from Alaska to California; wintering south of the United States in Mexico and Central America.

The tree swallow, or white-bellied swallow, is far less common than the violet-green in the northern part of its range. It builds its nest in hollow trees or old woodpeckers' holes, and rarely in a bird box. The tree swallow with its steely blue upperparts and pure silky white underparts is considered the most beautiful of all the swallows. It is so nearly like the violet-green swallow in appearance, however, that only a good bird student can identify it on the wing at any distance.

615 Northern Violet-green swallow, *Tachycineta thalassina lepida.* 5.30

Distribution: Western North America from Alaska to southern California, and from the Pacific Coast to Montana, Wyoming, Colorado, New Mexico and western Texas; breeding throughout its range. South in winter to highlands of Guatemala and Costa Rica.

The swallows of the Pacific Coast seem to follow well-defined routes in their wanderings. The violet-green swallows seem to prefer the inland valleys where they are found in untold thousands in the summer. They follow the waterways north early in March and by the middle of April are swarming over the countryside in quest of nesting sites. The nest is usually placed in the cornice of a building where a shingle has been knocked off or the boards have sprung, or on a beam on the inside of a barn which may be entered through a convenient knot hole. Many other curious and interesting nesting sites might be mentioned, however, and the violet-green is also one of the commonest occupants of the bird box.

In September the violet-green swallows gather for the long flight southward. They line the telegraph wires along country roads

and with much twittering make their plans for the long trip. Today they are everywhere in animated groups, tomorrow they have disappeared not to return until the following spring. The white rump patch, together with the white encircling the eye, will distinguish the violet-green from the tree swallow and are distinctive field marks for the species.

611a Western martin, *Progne subis hesperia.* 8.00

Distribution: Pacific Coast district from British Columbia to Mexico, wintering south to Nicaragua.

The western martin is not common anywhere in its range. Small colonies are known to inhabit certain localities about Puget Sound and the lower Columbia River. They are occasionally reported from points in the Coast Range Mountains where they are supposed to nest in hollow trees. They are known to nest in the wooden boxing about the overhead electric wires in some northwestern cities, and in the broken cornices of old buildings at several points along the lower Columbia. They are more common in the southern part of their range. In California the western martin is found about the farmsteads where it nests in the crevices of the

big red barns, or in artificial houses put up for them. The martin is the largest of the American swallows and may be distinguished from all others of the family by its color as well as by its size. The whole body is a glossy blue black, the wings and tail being black, the tail is deeply forked. Its twittering call note, or song, attracts instant attention by its vibrant quality. Martins are wanderers. They may be found in one locality for several years and then disappear without apparent reason, no others coming to take their place.

613 Barn swallow, *Hirundo erythrogastra.* 6.75

Distribution: North America in general from Alaska south over the whole of the United States and Mexico. Wintering from the Mexican border south through Central America and South America to the Argentine.

The barn swallow is very handsome with its steely blue upperparts, reddish brown underparts and long forked tail. In flight it is the most graceful of all the swallows. Along the Pacific Slope it is more common west of the Coast Range Mountains where it may be found in large numbers skimming over the grassy slopes in sight of the ocean; making its nest underneath culverts and

bridges and the eaves of the beach cottages, and about old outbuildings. The nest is a half saucer-shaped affair composed of mud and grass mixed together and warmly lined with feathers, placed either on a beam or rafter or glued to the side of a beam or wall.

617 Rough-winged swallow, *Stelgidopteryx serripennis*. 5.40

Distribution: Temperate North America, Mexico and Central America to Costa Rica. Breeding nearly throughout its range.

The rough-winged swallow resembles the bank swallow but may be distinguished from it by its soiled rather than white underparts and absence of the sooty band across the breast. Its nesting habits are similar to those of the bank swallow, although it is not found in so large numbers in any one place, and it sometimes places its nest in the cracks and crannies about the abutments of bridges. Although the rough-winged and bank swallows are much alike in appearance and habits, both species being sooty gray with lusterless plumage, the rough-winged is found more often about water than the bank swallow and lives in much smaller colonies. Neither

variety is common in the West, and both are rare in most parts of the Northwest.

FAMILY *TYRANNIDÆ*: FLYCATCHERS

444 Kingbird, *Tyrannus tyrannus.* 8.50

Distribution: Temperate North America, except parts of the arid regions (where it is distributed locally and irregularly), from the Atlantic Coast west to southern British Columbia, and in eastern Washington and Oregon.

The flycatchers comprise a family of over four hundred species centering in tropical America, about ten per cent of which come north in the spring to spend the summer in the United States, and northward to Alaska. Most of the family, at least those that visit the United States, are birds of somber hue, of browns and grays and blacks with only slight touches of color in some of the species. They have few distinctive markings and one must rely principally on their call notes, especially among the smaller species, to tell them apart.

The kingbird, eastern kingbird, or bee martin, is abundant in the eastern United States but thins out west of the Rockies, being found in certain localities in eastern Wash-

ington and Oregon but rarely west of the mountains.

447 Arkansas kingbird, *Tyrannus verticalis*. 8.75

Distribution: Western United States and Canada from British Columbia to Mexico, and from the Pacific Coast east to the Mississippi Valley. Wintering throughout Mexico and south to Guatemala.

The Arkansas kingbird or western kingbird, is slightly larger than its eastern cousin, with yellowish underparts, and is common in the open country along water courses where it frequents the willows and cottonwoods during the nesting season. It is also found far from water about the ranches and cattle pens where it may be seen perched on fence posts and scrubby trees, darting at the passing flying insects upon which it feeds. The nest of the Arkansas kingbird is placed in small trees or bushes or on ledges of rock in the broken hill country, and sometimes on beams or posts about the ranch buildings. The Arkansas kingbird is said not to be so quarrelsome as other kingbirds, and one observer noted a Say phœbe, Swainson hawk and Arkansas kingbird nesting in the same tree, all on the best of terms.

459 Olive-sided flycatcher, *Nuttallornis borealis.* 7.50

Distribution: North America from Hudson Bay to Alaska, southward in coniferous timber over the higher parts of the United States to the Carolinas, and in the coniferous forests of the western United States from British Columbia south to Mexico. Migrating in winter to South America.

With the exception of the kingbirds the olive-sided flycatcher is the largest of the family to be found on the Pacific Coast. It inhabits tall timber along the crests of the hills, and well up into the mountains, where it may be seen perched on the higher parts of some dead tree watching for flying insects. Its whitish underparts, raised crest and half-drooped wings will be noticed if examined through a field glass as it stands on its lofty vantage point. Its excursions will sometimes take it far afield but it will soon return to the same tree, which is usually near its nest.

The call note of the olive-sided flycatcher is a shrill *pu-pip, pu, pu-pip* while its song is a loud, drawling *s-e-e-h-e-r-e,* or *three ch-e-e-r-s* which may be heard a long way off. Its nest is placed high in fir or spruce and is one of the most difficult to find. It is beautifully made of small twigs, rootlets and green moss,

the outside covered with lichens and the inside lined with moss.

462 Western wood pewee, *Myiochanes richardsoni richardsoni.* 6.40

Distribution: Western North America from Alaska to southern California, and from the Great Plains to the Pacific Coast. Wintering southward over most of Mexico and Central America to middle South America.

The western wood pewee makes its home in the big maples that are found about the farm houses and barns in the open valleys. The barnyard nearby, with its numbers of flying insects, offers an inviting field for its food supply, and one or more pairs of wood pewees may be seen darting back and forth, in and out among the buildings, snapping up their unwary prey. The pewee's nest is saddled on the top of a large limb. It is made of fine grass, weed stems and bits of moss, lined with plant down, cobweb and feathers, and the outside is often decorated with lichens making the nest look like a knot on the limb. The call note of the wood pewee is a plaintive *swee-air.*

466 Traill flycatcher, *Empidonax trailli trailli.* 6.00

Distribution: Western North America from the Mississippi Valley to the Pacific

Coast, and from southern Alaska to Mexico. South in winter over greater part of Mexico, Central America and Colombia.

The Traill flycatcher is one of the commonest of its family to be found along the Pacific Slope. It may be seen everywhere from sea level to high mountains, in thickets of vine, maple and alder along streams, in deep brush-covered canyons, and along woods roads in the tangle of dogwood, hazel and fern. It is found along the borders of fields and country lanes where it may be seen darting from place to place in pursuit, of flying insects or chasing some rival from the vicinity of its nest.

Its nest is usually placed in a clump of ferns near the edge of the woods, or in a bush, or lower limb of a tree. Its song or call note is a hurried *pree-pe-deer.*

457 Say phœbe, *Sayornis sayus.* 7.75

Distribution: Western North America from Alaska to Mexico, and from the western part of the Mississippi Valley to the Pacific Coast.

The Say phœbe is a bird of the arid country and is seldom found west of the mountains along the Pacific Coast. It is easily recognized by its black tail and reddish brown breast, differing in these markings from all

other of our western flycatchers. It is one of the commonest of the western flycatchers and is said to breed from the Arctic Circle to Mexico, building its nest underneath culverts and bridges and about outbuildings, and in caves and crevices in rocks. It is also reported as nesting in abandoned mining shafts and has been known to occupy an old robin's nest. In common with others of the family it feeds upon flying insects, as well as grasshoppers, crickets, beetles and butterflies.

FAMILY *BOMBYCILLIDÆ*: WAXWINGS

618 Bohemian waxwing, *Bombycilla garrula.* 8.10

Distribution: Circumpolar, breeding in the coniferous forests of the far North or the higher mountains of the Canadian Rockies, ranging south in winter (irregularly) to middle United States.

The waxwings in several varieties are found throughout the northern hemisphere where they live in the great belts of coniferous timber, breeding north to the Arctic Circle. They are birds of great beauty, of a soft immaculate gray, trimmed with black, yellow and red, set off with a splendid crest which can be raised or lowered at will. The birds

are so different from any other North American species that there should be no difficulty in identifying them at sight.

The Bohemian waxwing is the larger and rarer of the two species. Its home is in the more northern parts of Canada, from which region it wanders south, at intervals of several years, during the winter, to visit various parts of the Pacific Coast states. Such a visit occurred during the winter of 1919–20 when large flocks appeared in the vicinity of Seattle, Spokane and Portland. They came into the dooryards to feed on holly berries and rose apples and to splash in the chilly water of the bird baths.

The Bohemian waxwing has been found nesting in the stunted conifers about Hudson Bay, and has been reported by Brooks, Macoun and Raine from various parts of the Canadian Rockies where nests and eggs were taken. The nest is described as a loosely constructed, bulky affair made of moss, dry grass, weed stems and rootlets, placed in small spruce trees about twenty feet from the ground.

619 Cedar waxwing, *Bombycilla cedrorum.* 7.00

Distribution: Temperate North America in general, wandering over most of the United

States and breeding northward through the Canadian Provinces to Hudson Bay. Wintering in whole of the United States, south irregularly to the West Indies and Central America.

The cedar waxwing, cedar bird, or cherry bird, although practically a permanent resident wherever found, has the habit of wandering about the country in small flocks, thus being common in some localities one year and rare the next. It may be that the food supply has something to do with this since the waxwing lives chiefly on various wild fruits and berries, though sometimes it makes serious raids on domestic fruits.

The call note of the cedar waxwing is a low beady *pee-eet* which may be heard as it sits perched in a tree or as it flies overhead. This, together with its rapid wing beat and straight-away flight, will help to identify it.

Its nest is usually placed in small firs, cedar or orchard trees. It is rather bulky, composed of bark, leaves, roots and weed stalks, sometimes bits of paper, and lined with various soft materials.

The waxwings are very sensitive about their nests being touched by the human hand and will often desert the eggs if they are molested in any way. On the other hand

they are most devoted parents when the young are hatched and will then endure almost any amount of disturbance without resentment.

FAMILY *TANGARIDÆ*: TANAGERS

607 Western tanager, *Piranga ludoviciana.* 7.00

Distribution: From British Columbia to Mexico and from the Mississippi Valley to the Pacific Coast. Casually eastward to the Atlantic states. South in winter through Mexico to Guatemala. The western tanager is the only representative in northwestern North America of a family of nearly four hundred species that centers in tropical America.

The western tanager, Louisiana tanager, or crimson-headed tanager is found everywhere in its range from sea level to high mountains, where it often breeds at an elevation of ten thousand feet. It inhabits all sorts of wooded areas but seems to prefer coniferous timber. East of the mountains it is abundant in the belts of pine timber where it is often seen in large flocks. In the valleys west of the mountains it is common everywhere in the cultivated areas, coming about the farmsteads to

feed upon wild and tame berries. In the fall it is commonly found in the dogwood trees where it consumes great quantities of the bitter red berries.

The western tanager usually builds its nest in a fir well up from the ground and near the tip of the limb. It is a flat, loosely built affair of twigs, grass and weed stems. The song of the western tanager is short, of three or four notes, with a robin-like quality. The call note is a *pit-ic, pit-ic-ic,* uttered as it sits high in a fir or other tall tree. The striking plumage of the western tanager, lemon-yellow body, black wings and orange-red head is so distinctive that the bird may be readily identified at sight.

In common with most of the family it changes its dress in the fall assuming almost the olive green of the female, with darker wings. In this plumage it spends the winter months.

FAMILY *FRINGILLIDÆ*: FINCHES

596 Black-headed grosbeak, *Zamelodia melanocephala.* 7.25

Distribution: Western United States and plateau of Mexico; north in summer to British Columbia, Idaho and Montana, and

east to the Dakotas and Nebraska. South in winter to southern Mexico.

When the black-headed grosbeaks first arrive in the spring they keep well to the tops of the tall firs along the crests of the hills where they may be heard singing, but are hard to see because of their habit of concealing themselves in the dense foliage. The females usually appear a couple of weeks later when the birds soon mate and scatter out over the valleys and hillsides to nest. Then they may be found in the mixed timber along woods roads and in brushy canyons, or in thick woods along streams.

The black-headed grosbeak eats wild fruits and berries of all kinds and is particularly fond of dogwood berries in the fall. They also consume great quantities of potato bugs and other injurious insects, as well as tender fruit and leaf buds of forest trees.

Its black head and conspicuous white wing bars, which show as white patches when it is flying, together with its rapid wing beat and straight-away flight will help to identify the species at a distance.

Its nest is a frail affair made mostly of twigs and rootlets so loosely woven together as to allow the eggs to be seen from underneath, and is placed indifferently in bushes

along the sides of steep hills, in trees in deep woods and in firs, nesting from the floor of the valleys to well up in the mountains. The song of the black-headed grosbeak is of fine quality. The well-rounded notes are executed with care and deliberation as if the bird were enjoying the performance. It has been called a "glorified robin song," and it is indeed one of the finest of the finch family. Its call note is a sharp *eek, eek,* resembling that of the Gairdner woodpecker, for which it is often mistaken when the bird is not seen.

599 Lazuli bunting, *Passerina amœna.* 5.30

Distribution: Western United States and British Provinces, from British Columbia to the Mexican border, and from the Pacific Coast east to the Dakotas and Kansas. Migrating in winter to Lower California and the valley of Mexico.

The Lazuli bunting comes North early in May from its winter home in Mexico and spreads over the country from California to British Columbia. Although it may be found in all sorts of country it is partial to second growth woods, old pastures and meadows interspersed with sweet-briar and blackberry vines. It has a weak song which

it repeats by the hour during the nesting season as it sits in the top of tree or bush. Its nest, a deep well-cupped structure, rather ragged in appearance on the outside, is placed in small trees or bushes.

The Lazuli bunting may be distinguished from all other small western finches by its coloration. The head, neck and back are a bright turquoise blue, the breast and sides are reddish brown and the wings have distinct white bars. When seen in bright sunlight the blue fairly glistens, a little gem in feathers.

567a Oregon junco, *Junco hyemalis oreganus.* 5.75

Distribution: Pacific Coast from the northern border of the United States, north to Alaska. In winter south through Washington and Oregon to northern California, and east to Nevada. Two closely allied species include: Shufeldt junco, found from northern British Columbia south through Washington and Oregon and east to Idaho and Montana; and the Thurber junco, found in southern Oregon and California, south to Arizona. Speaking generally, the Oregon junco is a summer bird in British Columbia, north to Alaska, and a winter bird in Wash-

ington, Oregon and California; while the Shufeldt junco is a summer bird in Washington and Oregon and a winter bird in California and the southwest to Mexico. The Thurber junco breeds in southern Oregon and south through California, summering in the mountains and wintering in the valleys. The three species are so much alike that it is hard to tell them apart without a close examination of the skins.

The junco is so abundant and conspicuous, with its blackish head and neck, flesh-colored bill, and a flash of its white outer tail feathers when it flies, that it may be easily identified by these points alone. It may be found everywhere, at all seasons, from sea level to high mountains, spending the breeding season in the hills and mountains and the winters in the valleys, where it swarms over the stubble-fields and pastures, and along the roads picking up weed seeds and scattered grain. Its metallic *chip* can be heard on every hand as it darts from the roadside at one's approach.

The junco builds its nest on the ground in the side of a bank or in an open field among the weeds. The nest is a frail structure of fine grass with a few bits of other soft material for lining.

588b Oregon towhee, *Pipilo maculatus oregonus*. 7.35

Distribution: Coast districts of southern British Columbia, Washington, Oregon and California, south to San Francisco Bay.

The Oregon towhee, or catbird, as it is commonly called, is common everywhere in its range from the mountains to the sea. It is a ground bird, living in the underbrush where it may be often heard, when not seen, through its habit of vigorously kicking in the dead leaves in search of food. Its love of the cover afforded by brushy fence rows and the tangle of brush and vines along woods roads, it shares with the song sparrow with which it is always closely associated. It is one of our permanent birds, braving the cold and snow with seeming indifference, its strong feet and bill enabling it to find a living where other weaker birds would perish.

It may be easily identified by its black head and neck, reddish brown sides, white belly and long black tail bordered with conspicuous white thumb marks. A near view will also disclose its red eye.

When disturbed it utters a mewing call note not unlike that of the catbird of the eastern states. It has a pleasing, though monotonous variety of other call notes and

songs which it repeats as it sits on some bush in the vicinity of its nest. When approached too closely it will dive into the underbrush, to reappear in a few moments at some other point, scolding all the while at one's intrusion on its preserves. Its nest is placed on or near the ground in thickets. It is coarsely built of twigs and weed stems, lined with various soft materials.

557 Golden-crowned sparrow, *Zonotrichia coronata.* 7.00

Distribution: Pacific Coast and Bering Sea districts of North America, breeding on the Shumagin Islands, Alaska peninsula, Kadiak and the more western parts of the Alaska mainland, and south at least to southern British Columbia in the high Rockies where its nests have been taken. South in winter through British Columbia, Washington, Oregon and California to Lower California; straggling eastward, rarely to Nevada, Colorado and Wisconsin.

The golden-crowned sparrow is a migrant and winter resident in the United States, reaching our northern border on the way south about the first of September, and by the middle of November has spread over the whole coast to Lower California. Its favorite

haunts seem to be along the sides of brushy canyons where it may be found sitting in small groups sunning itself in the bushes, preening its feathers and practising its peculiar soft, vibrant whistle of three notes given in a descending scale. Set to words it sounds like *O-dear-me!* Those who are familiar with the bird in Alaska report it as an incessant singer, the plaintive strain often becoming tiresome with the repetition.

It is often seen scratching in the dirt roads after the manner of towhees, always on the lookout for danger, darting into the adjoining cover at the least suggestion of it. Its larger size, conspicuously black area above the eyes and wide central stripe on crown, lemon-yellow in front and gray behind, will readily distinguish the golden-crowned from the white-crowned sparrow. The young of the year have the head marked with brown instead of black and they are very handsome in this dress. The golden-crown is seen in many places along the Pacific Coast as late as the middle of May, and many young are seen by the first of July, which may indicate that they may possibly nest within the borders of the United States, although no nest has yet been found so far as known.

554b Nuttall sparrow, *Zonotrichia leucophrys nuttalli.* 6.25

Distribution: Pacific Coast district from British Columbia south to southern California, east to the Cascade and Sierra Nevada Mountains. Two closely allied species are the Gambel sparrow, found in western North America from Alaska south to eastern Oregon. Idaho and Montana; and the white-crowned sparrow, found over most of the United States from the Atlantic seaboard to the western slope of the Rocky Mountain district, straggling west to the Sierra Nevadas and southwest to southern California.

The Nuttall white-crowned sparrow is one of the commonest of the sparrows along the Pacific Slope and is found everywhere from the mountains to the sea. It is always in evidence during the spring and summer, sitting on fence posts along country roads, perched on bushes and trees in field and pasture and along with the song sparrow making its home in the cities wherever there is shrubbery enough to afford protection, and gardens for its food supply of insects and worms. It is a familiar bird about the lawns, hopping about on the grass or singing from the top of some tree or peak of the house. It is also the night singer of the Pacific Coast.

Its song is subject to great variation and this often leads to some confusion as to its identity. The birds of the Puget Sound district have an entirely different song from those of the Willamette Valley in Oregon, and many of those of the coast belt differ from those of the interior valleys.

The nest of Nuttalls sparrow is usually built on the ground although it is sometimes placed in vines or shrubbery about the home ten or twelve feet from the ground. It is made of weed stems and fine grass when on the ground but twigs are used when placed in vines or shrubbery.

581e Rusty song sparrow, *Melospiza melodia morphna.* 6.00

Distribution: From southern Alaska south through British Columbia, Washington and Oregon, west of the Cascade Mountains.

Several closely allied species include: the Merrill song sparrow, found in Idaho and eastern Washington and Oregon; sooty song sparrow, found in Alaska, south in winter through western Washington and Oregon; Mendicino song sparrow, found on northwest coast of California and southwest coast of Oregon, and the mountain song sparrow, found in the Rocky Mountain districts of the

United States, west to the mountains of eastern Washington and Oregon. A dozen other sub-species are found in California and the Southwest.

The rusty song sparrow, in common with others of the genus, lives on or near the ground in thickets of brush and vines, in the tangle of fallen logs and ferns along woods roads and in the shrubbery and garden patch about the home. It is everywhere one of the familiar birds with brown-streaked plumage, and nervous wren-like action. It is a permanent resident wherever found for it is able to find a living in the coldest weather and under the worst conditions. Its food consists of insects and weed seeds. In the winter it may be seen picking at the thistles and cockle burrs that are sticking up through the snow, all the while calling to its fellows in a cheery manner, and if the sun breaks through the winter sky but for a moment, bursting into song. Its nest is placed in some tangle of vines or brush near the ground.

585g Townsend fox sparrow, *Passerella iliaca townsendi.* 6.70

Distribution: Breeds on Alaska peninsula and islands and migrates south along the Pacific Coast to southern California. Several

closely allied species include: slate-colored fox sparrow of the Rocky Mountain region and west to the Sierra Nevada and Cascade Mountains; Shumagin fox sparrow, of the Shumagin Islands and the Alaska peninsula; sooty fox sparrow of the coast district of British Columbia and northwest Washington; Kadiak fox sparrow of Kadiak Island, Alaska; thick-billed fox sparrow of the Sierra Nevadas of California from Shasta to Whitney, and Stephens fox sparrow of the mountains of southern California.

Fox sparrows in the west live in the far north or in the higher mountains of the United States, and are only seen in the valleys during the spring and fall migrations. The sooty fox sparrow is said to nest in northwestern Washington, and the slate-colored in the Cascades of Washington and Oregon, while the thick-billed and Stephens fox sparrows live and nest in California.

Fox sparrows may be distinguished from song sparrows by their slightly larger size, unstreaked upperparts, boldly spotted breast and yellow lower mandible. Their song is described as rich and fine for a finch.

552a Western lark sparrow, *Chondestes grammacus strigatus.* 6.15

Distribution: Western North America from British Columbia and Manitoba south over the United States to Mexico, and from the Great Plains to the Pacific Coast.

The western lark sparrow is common throughout its range except west of the Cascades where it is rare. It seems to be a bird of the plains and semi-arid country where it builds its nest on or near the ground. It is a far more common bird in California than farther north. Its striped head, brown cheek patches and rounded white-bordered tail are distinctive field marks.

540b Oregon vesper sparrow, *Pooecetes gramineus affinis.* 5.50

Distribution: Pacific Coast district from British Columbia south through western Washington and Oregon. South in winter to southern California and northern Mexico. The western vesper sparrow, its near relative, is found in western North America from Canada to Mexico (except Pacific Coast district), and east to the Mississippi Valley.

The "sparrows" are always difficult for the amateur to identify because of their similarity in appearance. They are brown-

ish, more or less lengthwise streaked birds that live on or near the ground, yet there are certain marks, which if learned, will help in telling them apart. The vesper and savanna sparrows look very much alike and live very much in the same kind of cover. The vesper sparrow has partly white outer tail feathers which may be seen when the bird is standing still but show more plainly as a field mark when it flies. The savanna sparrow lacks the white in the tail and is slightly smaller in size, but has a yellowish line over the eye that will serve as a good field mark.

The vesper sparrow is a common bird along country roads sitting on fence posts or bushes; a favorite perch being the cross arm of a telephone pole. It lacks a distinctive call note but has a pretty, though weak, song of several notes that is one of the pleasing sounds in the hot summer days along the dusty highways. The vesper sparrow makes its shallow nest of grass in some slight depression on the ground in grain or stubble-field or weedy pasture.

542b Western savanna sparrow, *Passerculus sandwichensis alaudinus.* 5.00

Distribution: Western North America from northwestern Alaska to southern

Mexico, and from the eastern edge of the Great Plains to the Pacific Coast. Breeding nearly throughout its range. Wintering in the valleys of the entire west and south through Mexico to Guatemala.

The savanna sparrow, meadow sparrow, or ground sparrow, keeps close to cover in weedy old fields, brush-grown pastures and in the grass-grown and vine-covered fence rows along country roads in company with the vesper sparrows. Although it may be seen at times perched on fence or bush it is usually found on the ground skulking along in the grass like a mouse, and it is flushed with difficulty. When it flies it goes in a halting zigzag manner for a few yards, to drop into the grass and hide itself as before.

Sometimes it may be seen running along in the bottom of a furrow in a grain field searching for tiny insects or weed seeds, then it will perch on an upturned clod and sing a weak little song, a tune just the reverse of that of the vesper sparrow. The nest is placed on the ground in grain field or pasture well hidden in the grass.

560a Western chipping sparrow, *Spizella passerina arizonæ*. 5.00

Distribution: Western North America in general from the Rocky Mountains to the

Pacific Coast (including Alaska) and British Columbia, south to the Mexican border. Wintering south to Mexico.

The western chipping sparrow, chippy, or hair bird is in habits and song like the chipping sparrow of the eastern states. It is the smallest of the sparrows and this fact together with its grayish white unmarked underparts, and distinct rufous crown patch will distinguish it from all others of the family on the Pacific Coast.

529b Willow goldfinch, *Astragalinus tristis salicamans.* 4.50

Distribution: Pacific Coast district from Lower California north to British Columbia, west of the Sierra Nevada and Cascade Mountains. An abundant summer resident and partial winter resident throughout its range.

The willow goldfinch, wild canary, thistle-bird, or yellow bird, is one of our most abundant and conspicuous birds throughout most of the year. It is found everywhere in open country from sea level to high mountains. It is a common bird along the coast within hearing of the booming breakers, or about the clearings on the crests of the ranges. It is a characteristic bird in the farming districts

where it may be seen perched on fences and telephone wires along the roads or feeding on dandelion and thistle heads in the fields. The goldfinch is equally common in the cities about the lawns and gardens. Any vacant lot grown up to weeds and thistles is likely to be the home of a small flock of goldfinches where they may be seen clinging to the bending stalks, picking at the ripened seeds.

In its summer dress of black and yellow the goldfinch differs from all other of our small birds in the arrangement of its color pattern, and this, together with its undulating flight and querulous call note, which is uttered on the wing, makes its identification easy.

Its call note is a plaintive *per-chic-o-ree.* Its song is a weak imitation of the tame canary and is heard constantly during the nesting season. The willow goldfinch changes its dress in the fall to olive-yellow and green and drifts about in small family parties from place to place in search of food, its favorite haunts being weedy old fields and brush-grown pastures. Because of its inconspicuous dress at this time of year it is often overlooked, and this leads to the common impression that it is only a summer resident. The willow goldfinch begins nesting in midsummer when there is plenty of thistle down and other soft

plant fibers with which to line its nest, which is made of weed stems and fine grasses.

Its nest is placed indiscriminately in bushes or trees up to fifty feet from the ground.

530a Green-backed goldfinch, *Astragalinus psaltria hesperophilus.* 4.50

Distribution: Southwestern United States and northwestern Mexico, northward through California and Oregon to southern Washington; common in the coast valleys north to the Columbia River.

The green-backed goldfinch is not nearly so common a bird as the willow goldfinch, and on account of its quieter habits and dark olive-green dress, with blackish upperparts, it usually escapes the attention of the casual observer. It seems to stay in the open spaces more than does the willow goldfinch, and apparently does not consort with it on the feeding grounds. The green-backed goldfinch has all of the interesting ways of the family, the same querulous talking notes and quaint little song as it sits perched on bush or tree, and the same undulating flight as it goes darting across a field. Its nest is placed in bushes or small trees and is similar in composition and construction to that of the willow goldfinch.

When the young are able to leave the nest they accompany the parents in small flocks to swarm over the weed patches in search of food. At the approach of cold weather most of them move to the more southern part of their range, a few however remaining in the protected valleys along the Pacific Slope.

521 Crossbill, *Loxia curvirostra minor*. 6.00

Distribution: Northern and eastern North America, breeding in coniferous forests from the southern Alleghanies in northern Georgia, Maryland, Virginia and Michigan, north to Nova Scotia and west to western Alaska. South in the mountain districts through the Pacific Coast states to California.

Although crossbills generally breed in the mountains they are sometimes found in the coast valleys in small flocks, a few remaining to nest in the firs on the big hills. They are particularly abundant however in the Coast Range mountains where they find a congenial home in the tall spruces, and one may see them, and hear their querulous call notes, all day long as they fly from the top of one giant tree to another. The crossbills have a fondness for salt and may be seen along the beaches picking at the encrusted salt on the

seaweed. At such times they are very tame and may be studied easily.

Crossbills are always hard to see in the tree tops, they blend so well with the foliage and cones upon which they feed. Through a pair of powerful glasses one can see them clinging to the cones while extracting the seeds, many hanging downwards like chickadees, and if one is near enough their plaintive conversation can be heard.

The nest of the crossbill is placed in some conifer from twenty to one hundred feet from the ground. The twigs which form the foundation are pulled from the trees rather than picked up from the ground, as with most birds. The nest is a rather flat structure, lined with rootlets, strips of bark and hair or other soft substances.

The call note of the crossbill is a metallic *kimp, kimp, kimp.*

Pine siskin, *Spinus pinus.* 4.50

533 Distribution: North America at large, breeding northerly in most of its range. Moving about in flocks in the winter in most of the United States. Abundant and resident in the coniferous forests of the Pacific Coast states.

The pine siskin is common in the Pacific

Coast district from sea level to high mountains, making its home in the great belts of fir and spruce that clothe the mountains and big hills. It builds its nest high in some conifer, and late in the summer when the young are full grown it gathers in large flocks to wander about the country in search of its favorite food which consists of the seeds of the Douglas fir and the alder. In the fall when the leaves have dropped these little birds may be seen in large numbers fairly covering the trees, hanging head downwards like chickadees as they devour the cone-like seeds. When disturbed they rise from the tree, a whirling mass of little gray birds, to circle about over the trees for a short distance and settle back again in the same tree to resume the feast. Pine siskins, in company with goldfinches, may often be seen along the roadsides feeding on weed seeds or thistle heads. The gray streaked plumage with yellow patch on the wing may be easily seen at such a time. They have much the same call notes and pretty little song of the willow goldfinch, and the same undulatory flight, showing their close relationship.

517a California purple finch, *Carpodacus purpureus californicus.* 5.75

Distribution: Pacific Coast district from

British Columbia to southern California, east to the Cascades and Sierra Nevadas.

The California purple finch is one of the characteristic western birds, found everywhere from the mountains to the sea. It is common in the valleys about the farms and comes freely into the cities to nest in the parks and dooryards. When singing its very finely modulated warble its favorite perch is the tip of the leader of fir or hemlock. Its song is one of the finest of the family, a clear loud warble of several notes, with many variations, but always unmistakable. Its call note is a plaintive *dear-ie*.

In the central valleys of Washington and Oregon the purple finch usually builds its frail nest in maple or alder trees, while in California it seems to go to the mountains to build in pine or fir.

The food of the purple finch consists of various insects, beetles and grasshoppers, together with tender leaf and fruit buds and berries, both wild and cultivated. It is often found along roadsides in company with goldfinches and pine siskins, picking at the dandelion and thistle heads; and in the fall it resorts to the dogwood in company with robins, tanagers and thrushes to feed on the berries.

Although partially migratory, large numbers of the purple finch remain all winter in the more northern parts of its range, and in severely cold weather it is one of the commonest birds at the feeding shelf.

The wine purple on head and neck and the pinkish wash on breast and rump will distinguish the purple finch from all other sparrow-like birds in its range. The female and young of the year are gray and brownish lengthwise-streaked birds without distinct field marks. It seems to take two or three years for the male bird to acquire its full breeding plumage, which varies all the way from deeply colored hues on some birds to barely a purplish trace on others.

518 Cassin purple finch, *Carpodacus cassini.* 5.75

Distribution: Western United States from the eastern base of the Rocky Mountains to the Pacific Coast, and from British Columbia to Mexico. Wintering from central California and southern Arizona south over the Mexican plateau.

The Cassin purple finch is practically unknown west of the Cascades, in the interior valleys in the more northern parts of its range, although common in eastern Washing-

ton and Oregon, and throughout California in the mountains and foothills country. In habits and nesting it is the same as the California purple finch but its song is said to be even finer.

The Cassin purple finch differs considerably from the California in its coloration. The squarish crown patch is crimson and the wash on breast and sides is decidedly pink instead of purplish.

It is reported that the Cassin purple finch is met with along the entire high Sierras from Mt. Shasta southwards. The winter storms only drive them a little lower down to the shelter of the brush, or in severe seasons to the foothills. With the return of spring the flocks go back to their pine-covered haunts in the higher altitudes. They breed north to the Spokane country where they are commonly found in the foothills, and in the Wallowa country of eastern Oregon.

524a Hepburn rosy finch, *Leucosticte tephrocotis littoralis.* 6.50

Distribution: High mountain districts of northwestern North America, from Alaska south through the interior mountain ranges of British Columbia, Washington and Oregon; straggling eastward to the Rocky Mountains;

rare and irregular in the southern part of its range. Two closely allied species are the gray-crowned rosy finch, found in the interior of British Columbia, wintering in the Rocky Mountains, and the black rosy finch of the high mountains of Idaho, Colorado and Utah.

The rosy finches are birds of the high mountains, living far above the timber line among the snow-clad peaks. They seem fearless in the face of the storms that sweep over the mountain tops, huddling together on the sheltered sides of snowbank or boulder until the sun comes out again.

Their food consists of small insects and beetles that are blown up the mountains by the winter storms and scattered in a benumbed condition over the surface of the snow. Only the severest weather will drive the rosy finches down into the timber below, where they may seek shelter for the night in dense clumps of spruce and pine.

The rosy finches are singularly tame in the presence of those who visit their haunts, feeding about on the snow close to one's camp or flitting from crag to crag in small flocks uttering a low churring note as they fly.

The nest of the rosy finch is hidden in the cleft of a rock or underneath the edge of an

overhanging crag. It is made of small weed stalks, moss, fine grass and feathers.

528 Redpoll *Acanthis linaria inaria.* 4.90

Distribution: More northern portions of northern hemisphere. In North America breeding from Greenland to Alaska and southward to the northern border of the United States. In winter south to northern United States generally, irregularly and more rarely to Virginia, northern Alabama, Ohio, Indiana, Kansas, Colorado, Washington and Oregon.

Redpolls are circumpolar in their distribution, living as they do in the region of ice and snow. They nest in the stunted cedars about Hudson Bay and south and west to the northern border of the United States.

In severe winters they drift south to middle United States, and along the Pacific Coast may often be found as far south as California in the Sierra Nevadas. In exceptional cases they have been found in the valleys in small flocks visiting weed patches and old gardens for the lettuce and turnip seed to be found there. They are also fond of the seeds of the alder and birch, and have the curious and interesting habit of following the crossbill to

feed upon the pine seeds which they drop as they tear at the pine and fir cones.

They remind one of the goldfinch and siskin in their manner of flight and querulous call notes and soft warbling song, and in feeding habits they resemble the chickadee in their manner of hanging back downwards at the ends of the tree branches while they peck at the seeds.

The redpoll migrates in winter more from want of food supply than on account of the temperature, often appearing in the United States in open winters and being found in the far north in the most severe weather, seemingly immune to bitter cold. The nest is built in low trees, bushes or on the ground as circumstances permit. It is composed of moss and fine grass, lined with hair and feathers.

514a Western evening grosbeak, *Hesperiphona vespertina montana.* 7.00

Distribution: Western North America from British Columbia to northern Mexico, and from the Rocky Mountains to the Pacific Coast.

The western evening grosbeak is a bird of irregular distribution. Its summer home seems to be in the heavy coniferous timber

of the big hills and mountains, although it is found sporadically at various points in the valleys the year around. Often in midsummer one may hear the beady call note of the evening grosbeak high overhead as it flies across the valley from one high point to another. It is a more familiar bird in the fall when it visits the towns to feed upon the crop of seeds that lie thick upon the ground under the maples in the parks and along quiet side streets. At such times the grosbeaks may often be seen festooned over the top of some large maple picking at the leaf buds or winged seeds that may still be hanging on the trees, or on the ground underneath walking about, crackling the seeds with their queer, thick flesh-colored bills. They are very sociable birds and not only keep close together but carry on a continual twittering conversation that sounds like the peeping of a flock of young chickens just out of the shell.

When suddenly startled on the ground they will often resort to "freezing" tactics instead of flying, and when in such an attitude fade almost imperceptibly into the background, the white and black, and gold, blending perfectly with their surroundings. When once they have found plenty of seed they are loath to leave the spot and though frightened away

will return again and again to the same place.

The evening grosbeak has two or three distinct call notes in addition to the conversational notes referred to, and one observer from eastern Oregon claims to have heard the grosbeak sing a pleasing warbling song.

When sitting still the evening grosbeak is easily recognized by its unusual looking bill and striking plumage, while it may be readily distinguished in flight by its short wings and rapid wing beat, together with the showing of conspicuous white wing patches and its peculiar whistled call note. It is seldom alone, except during the breeding season, and even then likes to be within call of its fellows.

The nest is described as being largely composed of the yellow lichen of the mountain pine forests where it usually spends the breeding season, but if the nest is built in other than conifers it will be made of bark and rootlets. The writer once saw a pair of evening grosbeaks carrying nesting material in the hills back of Portland but was unable to trace the birds to their nest. One bird, probably the female, had a mouthful of fibrous material and the male was following close behind as they darted up a canyon. The presence and call notes of a flock of

grosbeaks bring up memories of a wild free life in the out-of-doors, of the mountains, and the singing of the wind through the tops of fir and spruce, as one listens in the hush of the big woods.

FAMILY *ICTERIDÆ*: BLACKBIRDS, ORIOLES

508 ullock oriole, *Icterus bullocki*. 7.25

Distribution: Western North America from British Provinces south to the plateau of Mexico; east to the eastern border of the Great Plains, south in winter to southern Mexico.

The Bullock oriole belongs to a family group of about one hundred and fifty species whose center of distribution is in tropical America, and it bears the distinction of being the only one of the number that is found in all the northwestern part of the North American continent.

While they are found generally in all parts of the West, the orioles seem to prefer the interior valleys for their summer home.

Alders and cottonwoods along water courses are their favorite haunts. Here they build their nests, often returning to the same tree year after year. In cities and about farm

dwellings they live in the maples where they may be heard singing in the peculiar oriole fashion, a series of gurgles and chuckles, reminding one of their blackbird relationship. Their nest is a well-woven basket of plant fibers, wiry grass, wool, horsehair and string, lined with plant down and other soft substances. It is hung from the tip of some slender branch and is swayed by every passing breeze. East of the mountains in the arid plains country, where trees are scarce, every poplar or cottonwood near a bit of water is festooned with these nests.

The food of the Bullock oriole is said to be chiefly insects and injurious caterpillars. The birds are often seen in the berry patches but are searching for insects rather than fruit.

498f Northwestern red-wing, *Agelaius phœniceus caurinus.* 9.00

Distribution: Northwest coast district from British Columbia south through western Washington and Oregon to northern California. The bi-colored red-wing of Oregon, Washington and California, and the tricolored red-wing of the central valleys of California, north into southwestern Oregon, are closely allied species.

Blackbirds are inseparably associated with

lowland meadows, ponds, sloughs and marshes. The red-wing carries its field mark on its shoulders and needs no other badge of identification. No marsh is complete without one or more pairs of red-wings clinging to the tules or cat-tails, sounding their *o-ka-lee* or *cong-ga-ree* music, dear to every bird-lover. The favorite perch of the red-wing is the top of some small tree where it can get a good view of the marsh, some old veteran usually acting as lookout while the rest of the flock are feeding on the ground in the grass.

The nest is placed in a bush or in reeds over water. It is made of wide bladed grasses and strips of bark fastened to several upright stems, a well-woven basket-like structure, deeply cupped and warmly lined with feathers and hair. The blackbirds are sociable fellows, even in the nesting season, and like to build close together in the marsh where they keep up a continual conversation among themselves.

In the fall the red-wings collect in large flocks to wander about the country in search of food. At such times they may often be found associating together with the Brewer blackbirds, crows and robins, walking about over freshly ploughed ground picking up

insects and grubs, or in stubble-fields looking for fallen grain.

510 Brewer blackbird, *Euphagus cyanocephalus*. 9.00

Distribution: Western United States, British Provinces and greater part of Mexico, and from the Mississippi valley to the Pacific Coast. In winter south over most of its range to Mexico (except on the Pacific Coast where it is practically resident).

The Brewer blackbird is found everywhere from sea level to high mountain districts, and is equally common in marshes and the drier parts of its range. It is a more sedate bird than the red-wing, walking about on the ground with long strides in a very independent manner looking for food, and uttering a coarse *chack* from time to time. During the breeding season it has a curious squeaky little song which it gurgles to its mate as it sits perched on some convenient telegraph wire, or housetop in the city. If it comes to the feeding stations in the winter every other bird will stand aside, for it has a very aggressive manner and will greedily clean the board of all edibles.

The Brewer blackbird places its nest indiscriminately in bushes or trees, often to

the height of one hundred feet in the giant firs, or sometimes in an old woodpecker's hole, or crevice about a building. The nest is made of sticks, weed stalks, grass and rootlets cemented with mud or manure.

Although accused of doing some damage to crops, the Brewer blackbird consumes great numbers of worms and grubs, crickets and grasshoppers, and it is a common sight in the spring and fall following the plow to snap up the wriggling insects in the furrow.

494 Bobolink, *Dolichonyx oryzivorus.* 7.00

Distribution: Eastern and central North America in general. Occurring in the west sparingly in British Columbia and south through eastern Washington and Oregon, and in Idaho and Nevada. Wintering in Brazil and Paraguay.

The bobolink lives in the open country away from timber. It is found in the farming districts and prairies of the eastern United States in great abundance, ranging northwest into eastern British Columbia and southward very sparingly through eastern Washington and Oregon, and rarely into California during migrations. Only within recent years, however, has it appeared in any numbers west of the Rockies. The bobolink is highly migra-

tory, leaving the United States entirely in the winter and retiring almost in a body to South America, centering there in southeastern Brazil. In the spring it swarms north through the eastern states in untold thousands, nesting all the way from Florida to British Columbia.

It builds its nest in hay or grain fields or in grassy meadows, well hidden in thick grass, in fact its nest is one of the most difficult to find. The parents will resort to every artifice known to them to draw one away from the vicinity of the nest.

The male bobolink undergoes a complete change of plumage twice a year and during migration south in the fall the males, females and young have much the same appearance. In different parts of the country the bobolink goes under the different common names of meadow-wink, skunk blackbird, reed-bird and rice-bird. The song of the bobolink is a very pleasing one, of a bubbling, tinkling quality hard to describe.

497 Yellow-headed blackbird, *Xantho-Cephalus xanthocephalus.* 9.30

Distribution: More open districts of western and central North America generally, from British Columbia east to Manitoba,

Illinois, Indiana, and Michigan, and south to northern Mexico. Breeding throughout its range in suitable localities.

The yellow-headed blackbird is common in eastern Washington and Oregon, and in the central valleys of California, rarely coming west of the mountains in the northern parts of its range. It is partial to the reedy borders of alkaline lakes or the edges of the big ditches in the irrigated country where it builds its nest in the tules over water. The nest is a deeply cupped, well-made structure woven of the wet leaves of tule and marsh grass lined with fine grass, soft weed stems and plant down. In the fall the yellow-heads gather in flocks with other blackbirds and wander south in their annual migration.

Vernon Bailey speaks of finding "flocks by themselves in fields and meadows, along the roadsides, often in barnyards and corrals, and sometimes in city streets, flocks with pompous, yellow-capped males strutting about among the dull-colored females and young, talking in harsh, guttural tones. Noisy at all times, they are doubly so at the breeding grounds, where they try to sing, and their hoarse voices come up from the tule borders like the croaking of frogs and creaking of unoiled gates."

501.1 Western meadowlark, *Sturnella neglecta.* 9.50

Distribution: Western United States from the Mississippi valley to the Pacific, and from British Columbia, Alberta, Saskatchewan, and western Manitoba south to northern Mexico and Lower California.

The meadowlark is a bird of the wide, open country. It is a feature of every grain or stubble-field, and when not engaged in looking for food may be heard whistling its clarion song as it sits perched on fence or bush along the road. While it is a bird of the ground it may sometimes be seen perched on the top of a tree where it watches the passerby, nervously jerking its tail and uttering its sharp alarm note to warn its mate on the ground in the adjoining field.

The nest is hidden under a thick bunch of grass in a meadow or field. It is usually arched over by pulling the nearby grass down to form the cover.

The song of the western meadowlark has a greater variety of notes than that of the eastern species. It has been known to change its song two or three times while one listened to it, some thirty or more variations being recorded. It is a constant singer and can be heard at any season of the year.

When other birds are silent its melody greets the ear as the sun breaks through the rift in the clouds in the winter sky, and brings up visions of summer, and waving grain fields and green meadows. The western meadowlark is practically a permanent resident along the Pacific Coast west of the Cascades. During severe winters it will come to the feeding stations with other birds, but ordinarily it is well able to find a living for itself under even very hard conditions.

FAMILY *ALAUDIDÆ:* LARKS

478g Streaked horned lark, *Otocoris alpestris strigata.* 7.00

Distribution: Pacific Coast region from British Columbia to California; migrating to eastern Washington and Oregon, and southward.

The horned lark is the only representative found in North America of a world-wide family; the one species, with about a dozen geographical races, being scattered from Hudson Bay to Mexico. Those birds living in desert areas are lighter in coloration than those inhabiting the more humid districts. In the Pacific Coast districts the dusky horned lark is found from British Columbia

south between the Cascades and the Rockies, wintering to Nevada and California; pallid horned lark, breeding in Alaska and migrating southward to Oregon, Utah and Montana; and the California and ruddy horned larks, and a half dozen other varieties found in California and the Southwest

Horned larks are ground birds, gleaning a living from the stubble-fields and along roadsides. They are often seen perched on fence posts along country thoroughfares and have the curious habit of crouching low when alarmed by any passerby, as if to hide themselves. They fly with a sudden jerky motion, usually going only a short distance to drop into the grass, and running along a few feet they will mount an upturned furrow to watch the wayfarer disappear down the road. One must look for horned larks in flat open country away from timber, along dusty roads when the heat is dancing in the air and the purple hills look hazy in the distance.

The nest of the horned lark is a frail structure placed on the ground in an open field. The horned lark has a weak song which is uttered as it sits perched on the ground or fence, or as it goes darting across a field.

FAMILY *ALCEDINIDÆ:* KINGFISHERS

390 Belted kingfisher, *Ceryle alcyon.*

13.00

Distribution: North America and northern South America. Breeds from northwestern Alaska, and northern Quebec and Newfoundland, south to the southern border of the United States. Wintering on the Pacific Coast from British Columbia southwards.

The kingfishers are cosmopolitan in their distribution, the center of their abundance lying in the Malay Peninsula. Nearly two hundred species are known, only about a dozen of which are found in the western hemisphere. They are divided into two general groups, those that are found in the vicinity of water and catch fish by plunging in after them, and those that live in the woods or desert places and feed on insects and small animal life.

The water loving species dig their nesting burrows in the banks of ponds or streams, while the wood dwelling group nest in natural cavities in trees.

The belted kingfisher is one of our best known birds and is generally distributed in suitable localities throughout its range, though seldom common anywhere. Al-

though a summer resident only in the more northern parts of its range, it is practically resident in the United States along the Pacific Slope. It is commonly found along salt water and in the mountains up to ten thousand feet where it may be seen about the mountain torrents and glacial lakes. The kingfisher frequents the shores of clear ponds, lakes or streams, bordered with brush or trees, and may often be seen perched on some half-submerged snag or fallen tree top or dead branch overhanging the water, watching for fish. There seem to be certain places where it will sit by the hour in silent meditation, its only movement being a quick turning of the head from side to side as if watching for some danger that might threaten. When it spies a fish it springs into the air, hovering over the spot for a few moments like a sparrowhawk, and then, if not certain, rising higher to hover again for a moment and then plunge boldly into the water. On emerging with its prey it flies to some favorite perch, beats the fish against a limb to make sure that it is dead and swallows it head foremost at a gulp. Although fish constitutes the major part of its food it also captures various kinds of insects, frogs, lizards, small crustaceans, mice and even small birds.

The kingfisher digs its nesting burrow in the banks of streams, railroad cuts and abandoned gravel pits. The hole is from three to eight feet deep, usually straight but sometimes turned at an angle, and nearly always slanting upwards. The end of the burrow is enlarged making a dome shaped chamber where the eggs are laid on the bare ground or pile of crawfish shells, though sometimes a scant nest of grass is made. The male kingfisher will sometimes dig a burrow nearby, about three feet deep, in which to sleep at night.

The glint of blue and white, the long sword-like bill, the rattling call note and the energetic flight of the kingfisher are characteristic sights and sounds of every watercourse. As long as there is open water the kingfisher will find a living and will stay about its accustomed haunts, and if, as in the mountains, the water freezes over, it simply moves down into the valleys.

FAMILY *CORVIDÆ:* CROWS, JAYS, MAGPIES

478 Steller jay, *Cyanocitta stelleri stelleri.* 12.50

Distribution: Pacific Coast district from southern Alaska to middle California, east to,

and including. the Cascades and Sierra Nevadas. Closely allied species include the blue-fronted jay of California; Coast jay, of the Coast counties of California and Oregon from Monterey Bay north to the Columbia River; and the black-headed jay found from eastern British Columbia and the northern parts of the Rocky Mountain regions generally, south through eastern Washington and Oregon, and eastward to Wyoming, Utah and western Nebraska.

The Steller jay, blue jay or jaybird is found everywhere from the thick brush of the Coast counties to the tall timber of the high Cascades and Sierra Nevadas. It is common in the valleys about the farms where it picks up a living around the barn and chicken yard, in old pastures and stubble fields where grain has been scattered, and comes into the outskirts of the cities to skulk in the underbrush and snatch up any stray eatables that may be found within reach of its long black bill. The large size of the Steller jay together with its jaunty crest and deep blue dress make it a conspicuous object as it sits in a fir or hemlock, working upward from limb to limb by short leaps, until, reaching the top, it sails downward again with outstretched wings, showing to advantage the beautiful color of

its plumage. Its call and scolding notes are harsh and rasping, and when suddenly disturbed, its squawking sets all the woods astir. Its nest is a wide, flat structure made of twigs and grass lined with rootlets. It is usually placed in small firs from eight to twenty feet from the ground, and rarely in the taller firs. There is no prettier sight than a nestful of nearly full grown young jays with their wide open yellow mouths begging for food.

48. Oregon jay, *Perisoreus obscurus obscurus.* 10.25

Distribution: Mountain districts and fir clad hills of northern California, Oregon, Washington and southern British Columbia.

Two closely allied species are the white-headed jay found in the coniferous timber of the Rocky Mountain region west to eastern British Columbia, Washington, Oregon and south to Arizona; and the gray jay found in the interior districts of British Columbia south through Washington, Oregon and California.

The Oregon jay, camp robber or meat bird is only seen in heavy coniferous timber where it flits silently from tree to tree in search of food, which consists of whatever offers itself in the shape of insects, acorns and many a

nestful of other birds' eggs. The Oregon jay is a long lean looking bird, with loose plumage that looks unkempt at all seasons. It is a somber bird of black and white and brownish gray, with no suggestion of blue anywhere. It is the little camp robber in hunters' parlance, a name earned by its boldness in coming about the camp and stealing from pot, kettle or table what it can carry away.

The nest of the Oregon jay is usually placed in a bushy fir well up from the ground and is hard to find. It is bulky, of the usual jay type, wide and flat, lined with moss and rootlets.

481 California jay, *Aphelocoma californica californica.* 11.75

Distribution: Pacific Coast region from the Columbia River south to Lower California, and east to, and including, the Sierra Nevada and Cascades. Rare in the northern parts of its range. A few seen in the Willamette valley north to Salem, and rarely to the vicinity of Portland.

The California jay, or blue squawker, belongs to a genus including eight or ten closely allied species of crestless jays that strongly resemble each other in the field, but which when examined in the hand are found

to show interesting differences in shades of blue and gray, and in the pencilings about the head and throat. They are all birds that are found mostly in mountainous country or in the high plateaus, being frequenters of pine and fir and the oak timber of the southwest.

Although common in California, the California jay thins out northerly through the interior valleys, and for some unknown reason it is now rare in districts where formerly it was common. It is usually found in oak woods where a large part of its food consists of acorns. In common with most jays it is very destructive of the eggs and young of other small birds. It is also a destroyer of a vast number of injurious insects.

The nest of the California jay is usually found in low bushes or thickets near the ground, or more rarely in trees. It is a noisy bird and will often fill the woods with its *jay, jay, jay,* or *quay, quay, quay,* and sometimes *boy-ee,* or *kay-kee.*

492 Piñon jay, *Cyanocephalus cyanocephalus.* 11.00

Distribution: Piñon and juniper woods of the western United States from British

Columbia south to Mexico, and from the Rocky Mountains to the Pacific Coast; casually east to Kansas and Arkansas.

The piñon jay, blue crow, or pine jay, as noted in the distribution, is a bird of the piñon and juniper woods of the mountainous and plateau districts of the west. It frequents the belts of pine timber in the foothills from California northward through eastern Oregon and Washington to southern British Columbia. Unlike most jays, it is often found in large flocks after the breeding season, swarming through the woods like a flock of blackbirds and feeding on the ground. It may often be seen pursuing grasshoppers and other insects on the wing after the manner of the flycatchers.

The piñon jay seems to be an exception to the rule among its kind in that it is a sociable bird, being on good terms with other small birds, nesting near them without harming either eggs or young. And to prove its good intentions it often builds its own nest in plain sight on the lower branch of some tree, often in small colonies. Its nest is a bulky affair, composed of piñon needles, bits of sage brush and shreds of bark, lined with rootlets and dry grass well woven together. In the fall when the young are full grown they may be

seen following the parents about teasing for food, which is always willingly supplied.

The piñon jay closely resembles the California jay at a distance, but at close range the latter bird is found to have grayish-white under-parts and bluish streakings on the throat, while the piñon jay is almost uniform grayish-blue with white streakings on the throat.

475 Magpie, *Pica pica hudsonia.*

19.50

Distribution: Treeless or more sparsely wooded districts of western North America, except coast and interior valleys of California from Alaska to Arizona, New Mexico and western Texas. A rare straggler eastward to Ontario, Michigan, Illinois, Wisconsin and Nebraska. The yellow-billed magpie, a somewhat smaller bird, is found only in the interior valleys of California.

The magpie, American magpie, or black-billed magpie with its striking black and white plumage, long wedge-shaped tail and peculiar flight will attract instant attention whether seen from the window of a moving train as one speeds across the wide dusty plains or from one's seat in an automobile in the cattle country. The magpie is a bird of

the arid plains, being common along willow bordered streams or about the irrigated districts from Montana to California. It rarely straggles over into the valleys west of the mountains, although occasionally following the Columbia River down to the Willamette.

The magpie builds its nest in a scrubby tree or bush, a mud cup lined with grass, hair and pine needles, surrounded by a mass of coarse sticks built in a globular form with an opening at the side. The nest is often as large as a bushel basket. In manners and food habits the magpie strongly resembles the crow.

488b Western crow, *Corvus brachyrhynchos hesperis.* 19.00

Distribution: Western North America from northern British Columbia south to Mexican border, and from the Rocky Mountains to the Pacific Coast, except the coast district from the Columbia River northward, which is the home of the northwestern crow.

The western crow in every way resembles the other members of the family, differing from its eastern relative only in its smaller size. It does not collect in the great roosts so common in the eastern states but lives in

comparatively smaller groups. Although on the blacklist in many states because of the damage it does to crops, a recent announcement from the Agricultural Department would indicate that it does not do the amount of harm imputed to it. In all events it is one of the most interesting birds that we have, and a pet crow will keep one busy with its sly tricks and knowing ways.

491 Clarke nutcracker, *Nucifraga columbiana.* 12.50

Distribution: Coniferous forests of western North America from Alaska to Mexico, casually eastward to the states of Kansas, Missouri and Arkansas.

The Clarke nutcracker, Clarke crow, pine crow, gray crow or big camp robber lives along the crests of the ranges in the high mountains. It is a frequenter of stunted pine and fir and a characteristic feature of mountain scenery. It is a combination of all the traits of both crow and jay, and in size and color is between the two. It is an independent and positive bird, and with its clear-cut plumage of ashy gray, and the contrast of black and white in wings and tail it makes a fine picture as it sails along or pitches headlong down a thousand feet or more

uttering a harsh *kar'r'*, *kar'r'r'* as it goes. Mountain climbers report it as a very tame bird, following along in the trees as they toil upward, and visiting camp on occasion, to pick up what it can for food. It is reported to be a sly rascal about these mountain camps and is in habits a first cousin to that other little rascal in feathers, the Oregon jay. The Clarke nutcracker builds a bulky nest in evergreen trees often when the snow is still on the ground. Its food in winter is mainly pine nuts which are hammered from the cones with much labor. In summer it feeds mainly on insects, beetles, grasshoppers and various wild fruits.

FAMILY *PICIDÆ:* WOODPECKERS

413 Red-shafted flicker, *Colaptes cafer collaris.* 13.25

Distribution: Western United States and southwestern British Provinces (except coast district from northern California northward), east to the Great Plains, and south to Mexico. The northwestern flicker, a closely allied species, is found from northern California, north to Alaska, west of the Coast Range Mountains.

The red-shafted flicker is so well known, even to the most casual bird student, that any

detailed description of its plumage or habits seems superfluous. It is a common bird everywhere. It hops about on the lawn with the robins, digging in ant hills or probing under the grass roots with its long bill in search of any worm or cricket that may be hidden there. It may be seen perched on telegraph poles, peaks of houses, and, on rare occasions, even on the coping of a business block in the downtown district. It is a familiar sight in the country about orchards and fields, digging a hole for its nest in any old stump or dead tree that may be handy to its feeding grounds.

The large white rump patch, which shows distinctly as it flies, is the positive field mark of this species. Its characteristic call notes sound like *wicker-wicker-wicker*, or *yucker-yucker-yucker*, and again it shouts *heigh-ho!* or *warrup!* as it sits in the top of a tree.

403a Northern red-breasted sapsucker. *Sphyrapicus ruber notkensis.* 9.00

Distribution: Northwest coast district; breeding from western Oregon northward through western Washington and British Columbia to southern Alaska. Closely allied species include the red-breasted sapsucker of California and south central Oregon, east of

the Cascades; red-naped sapsucker, found in western North America from British Columbia south to Mexico, and from the Rocky Mountains west to the Cascades and the Sierra Nevadas, sparingly west of the mountains in Oregon and Washington.

The red-breasted sapsucker is found in coniferous timber and mixed woods from sea level to high mountains. It is common in parts of its range and rare in others. One never sees more than one or two pairs at a time. It is a shy bird, keeping behind the trunk of a tree as you approach it, all the while peering at you cautiously from first one side of the tree, and then the other. Sometimes it is seen clinging to a rail fence, or in small trees, but more often in tall firs or cedars in heavy timber.

The all-red head, neck and breast of this bird make its identification easy, since no other woodpecker on the Pacific Coast is like it in appearance.

The call notes of the red-breasted sapsucker are varied and unusual for a woodpecker. One of its calls sounds more like a squirrel than a bird, while another reminds one of a hawk. The latter is unique as coming from a woodpecker, it is so loud and unexpected.

The nest is built in both live and dead trees, and the eggs are white, in common with all woodpeckers.

393c Harris woodpecker, *Dryobates villosus harrisi.* 9.50

Distribution: Humid Pacific Coast district from northern California, north through Oregon and Washington to British Columbia and southeastern Alaska. Three other closely allied varieties found on the Pacific Coast are the Rocky Mountain hairy woodpecker of the Rocky Mountain region, west to the eastern slope of the Cascades; Cabanis woodpecker of the Southwest and California, and the Queen Charlotte woodpecker of the Queen Charlotte Islands, British Columbia.

The home of the Harris woodpecker is in the deep woods where it lives a more or less solitary life. It is found everywhere from sea level to high mountains, seeming to prefer coniferous timber rather than mixed woods, though it is occasionally seen in heavy timber along streams and on the crests of the big wooded hills. It is the counterpart in color-pattern of its smaller cousin the Gairdner woodpecker, though much larger in size.

The Harris woodpecker is a forest preserver, spending much of its time ridding the trees

of the wood-borers that destroy them. In common with many of the family it enjoys drumming on some resonant limb when not otherwise engaged in seeking its food.

The call note of the Harris woodpecker is a sharp *peek*, or *eek*, which is usually answered by its mate from some other part of the woods. Its nest is dug in some dead tree from twenty to fifty feet from the ground.

394a Gairdner woodpecker, *Dryobates pubescens gairdneri.* 7.00

Distribution: Humid northwest coast district from southern British Columbia south through Washington and Oregon to northern California. Two other closely allied varieties are the Batchelder woodpecker of the Rocky Mountain region west to eastern Washington and Oregon and California, and the willow woodpecker of southern California.

The Gairdner woodpecker is a friendly little fellow that comes boldly into the dooryard to make a survey of the tree trunks, or to take an occasional mouthful of fruit from dogwood or wild cherry. It goes rapidly up a tree, making side excursions to all of the big limbs and then flies on to the next tree in a nervous, restless manner to repeat the performance.

The Gairdner woodpecker is found everywhere both in open country and timbered areas. It makes itself at home in fruit orchards, in the wood-lot and in clumps of trees about the farmsteads. It is commonly seen in vacant lots and parks about the cities where it gleans larvæ and spiders from every tree and shrub. It is the counterpart of its cousin, the downy woodpecker of the eastern states, building its home in a dead limb of some orchard tree or in a stub in field or wood-lot. Its call note is a shrill *eek*, and occasionally it utters a rapid, rattling cry.

407a California woodpecker, *Melanerpes formicivorus bairdi.* 9.00

Distribution: Pacific Coast region from southern Oregon (Eugene), south to northern Lower California, west of the Cascades and Sierra Nevadas.

The California woodpecker haunts the oak belts of the Southwest, its favorite food being acorns. It is a rare bird in the northern part of its range and is seen only occasionally as far north as Eugene, Oregon. In habits and characteristics the California woodpecker is very much like the red-headed woodpecker of the eastern states.

405a Northern pileated woodpecker, *Phlœotomus pileatus abieticola.* 17.00

Distribution: Heavily wooded regions of North America from the southwestern Alleghanies northward to about latitude 63, and westward to the Pacific Coast. The western pileated woodpecker is a new sub-species found in the humid northwest coast district from British Columbia south through Washington, Oregon, and California to Mendicino county on the coast, and southern Sierra Nevadas in the interior (Sequoia National Park); east to Idaho and Western Montana.

The pileated woodpecker, log-cock, or cock-of-the-woods lives in the big woods, in the broken hill country and the mountains. It has become one of the rarer species, for its large size and handsome appearance has been its undoing, the so-called scientist, the collector and the idle gunner having shot it out to such an extent that it has become exceedingly wary of the settlements.

These woodpeckers may be found occasionally in the valleys by twos and threes but one must go to the mountains to find them in their real hunting grounds. Here they may often be heard knocking on the trees with sledge-hammer blows as they dig into the rotten wood for grubs. Their loud call, *cuk,*

cuk, cuk, cuk, cuk, rings through the timber as they fly back and forth from ridge to ridge. When flying the pileated woodpecker has a spread of wings of over two feet. It goes with long sweeping strokes in the undulating manner of its kind and makes a grand picture that matches well its usual wild surroundings. Its large size, together with its flaming red crest and conspicuously black and white plumage make its identification certain. Its nest is usually excavated in living trees well up from the ground but occasionally in dead trees or stubs at low elevations. Its powerful blows cut out unbelievable chunks of wood and the ground below plainly shows the amount of chips removed. Its nesting hole is about fifteen inches deep and the glossy white eggs are laid on a bed of clean chips.

408 Lewis woodpecker, *Asyndesmus lewisi.* 11.00

Distribution: From the Rocky Mountains to the Pacific Coast, and from British Columbia and Alberta south to Arizona and California.

The Lewis woodpecker is unique among the family. At a distance it looks and flies like a small crow, with steady straight-away wing beats, and one might think it a crow until it lights on the side of a stub in characteristic

woodpecker fashion. The Lewis woodpecker may be found everywhere from sea level to high mountains, frequenting the stretches of dead timber where it may be seen flying from stub to stub, or perched in flicker-like attitude on the top of a broken-off tree or lengthwise on a limb.

It is also found throughout the valleys about the farming districts especially where there are numerous dead and blackened stubs suitable for nesting holes. It is a familiar figure perched on fence posts along country roads on the lookout for grasshoppers and crickets, or darting into the air to snap up a passing winged insect. This habit is often indulged from the top of a high stub, the bird returning again and again to the same perch unless its excursion takes it far afield, when it will stop on some other tree to repeat the performance. The iridescent greenish black of the upper-parts, crimson face, grayish breast, and rose pink belly make the Lewis wood pecker distinctive in coloration and easily identified.

FAMILY *ODONTOPHORIDÆ:* BOBWHITES, QUAILS

289 Bobwhite, *Colinus virginianus virginianus.* 10.00

Distribution: Resident in eastern United

States, and spreading from Nebraska and Texas westward; also since introduction, in Colorado, New Mexico, Utah, Idaho, California, Oregon and Washington.

The bobwhite, or bobwhite quail, is found in several varieties in different parts of the United States. Those on the Pacific Coast are the offspring of the original stock from the northeastern part of the United States. Another slightly smaller and darker subspecies is found in Florida, and still another in Texas, and the masked bobwhite is found in the extreme southwest.

Since introduction on the Pacific Slope the bobwhite has increased rapidly and is now as common as the native quail. It is found in the open country away from timber, in old fields, pastures, grain fields and slashings where the cover is good. It likes to follow the fence rows that are grown up to brush and weeds or the dusty country roads where it loves to take dust baths during the hot summer days.

Some old bird, the chosen leader of the flock, will mount a fence post and be on guard while the rest of the flock is feeding in the edge of a nearby field. If one comes too near it will begin nervously to walk back and forth, jerking its head and clucking to its comrades below. Then with a startled alarm note it

will dart across the field with a rush of wings, to drop out of sight in the grass, the rest of the flock skulking through the field to join him, or taking wing by twos and threes to go in the same direction. Presently the old scout will mount a fence rail and begin his call, *I want you, I want you, I want you,* emphasis being placed on the *you.* In a few minutes the clan will be united and the leader will probably call *bobwhite, bob, bobwhite,* in triumph across the field. When surprised in the tall grass bobwhites will sometimes "freeze" instead of flying and it is interesting to see how much they depend on their coloration for protection. At such a time they will almost allow one to step on them before taking flight. Again the sudden rush of wings as they fly up from almost under foot is disconcerting when unexpected.

Bobwhites are among the most domestic of birds. Both parents brood the eggs and share alike in caring for the young. The nest is usually placed in the corner of an old rail fence or near a stump or under a fallen tree top. It is built of grass neatly arched over with the same material and carefully hidden from view. Twelve to twenty eggs are laid, pure white and sharply pointed at one end. It is said that the male bobwhite

will sometimes incubate the first clutch while the female is bringing off a second brood, thus accounting for the large number of young often seen trailing after one pair of bobwhites. The young are little balls of fuzzy brown, striped on the back with darker brown and buff. As soon as they are out of the shell and have dried off they are ready to leave the nest and follow their parents out into the world. Bobwhites watch their young with jealous care, giving the alarm at the slightest approach of danger.

In the more settled parts of the country bobwhites spend most of their time in grain and potato fields where they consume great numbers of potato bugs and other insects which are injurious to field crops.

They are not known to injure grain or field crops of any kind, and wherever you go, east or west, the bobwhite is one of the favorite birds of farmer and bird-lover alike; his cheery call bringing up recollections of days on the farm, of waving grain and rustling corn, of peace and contentment.

292 Mountain quail, *Oreortyx picta picta.*
11.00

Distribution: Humid Pacific Coast districts from middle California north to Puget

Sound, rare in the northern parts of its range. The plumed quail, a closely related form, is found from the Columbia River south to Lower California in the more arid districts east of the Cascade and Sierra Nevada Mountains.

The mountain quail and the plumed quail are so nearly alike that the slight differences will be overlooked in the field. It is well to keep in mind that the former is found in the deep wooded humid districts in the hills and valleys while the latter species keeps more to the drier parts west of the Cascades in Oregon and on both sides of the Sierra Nevadas in California. The mountain quail, or mountain partridge frequents the wooded hills throughout the interior valleys where its loud clear whistle may be heard all summer as it calls to its mate or young. Mrs. Bailey gives a splendid rendition of its call in the words, *kah, kah, kah, there's danger ne-ar, there's danger ne-ar.* Its whistle has a peculiarly penetrating and ventriloquial quality.

The long straight plume on its head, and its larger size will readily distinguish the mountain quail from the California quail, the latter having a shorter crest which curves forward. The nest of the mountain quail is placed on the ground in a thick clump of

grass, or beside a log or under a fallen tree top. It is made of leaves and fine grass. The eggs are from eight to fifteen in number, creamy white and unspotted. When surprised in the woods with their brood of half-grown young the old birds will dash into the underbrush with wild cluckings while the young will hide in the grass until the danger is over. One can almost pick them up before they will scamper away. The young birds are very pretty in their brown streaked plumage and short erect crests as they go running ahead of one in single file, weaving back and forth as they watch for some opening into which they can dart to safety.

294 California quail, *Lophortyx californica californica.* 9.50

Distribution: Resident along the Pacific Coast from middle California north to the Columbia River, and sparingly northward west of the Cascades in Washington (except in the region of Seattle where it is abundant in the reserve about Lake Washington). The valley quail, a closely related form, is found in the more arid interior districts of Oregon and California and south to Lower California.

The California quail, California partridge,

top-knot quail, or valley quail, as it is variously called, is the commoner of the two species about the farms and in the valleys generally. It may be seen in the parks and vacant lots about the cities, often becoming so tame as to be a menace to tender garden truck of which it is very fond. Little coveys of these quail may be seen along country roads in the edges of wood lots, or perched on fences whistling their *sit-right-down, sit-right-down, sit-right-down.*

The California quail builds its nest like all others of the family in clumps of grass at the foot of a tree, or under the edge of a log or fallen tree top. The eggs, twelve to sixteen in number, are white or buffy, thickly spotted with shades of brown.

FAMILY *PHASIANIDÆ:* PHEASANTS AND TURKEYS

98 Ring-necked pheasant, *Phasianus torquatus*, Male, 30.00: Female 22.00

Distribution: Southern Siberia, Corea and northeastern China. Now found in many states of the Union, principally on private game farms, though in a wild state in some sections, being particularly abundant in California, Oregon and Washington. It is

one of the commonest of the game birds of Oregon where it was introduced from China by Judge Denny in 1880. It is now abundant everywhere in the valleys west of the Cascades and in the irrigated districts east of the mountains.

On account of the protection afforded the pheasant by the game laws it is now one of the main sources of sport open to the gunner in the short open season each year. It has increased so rapidly in the farming districts as to be a serious menace to growing crops in some sections, and it has become so tame in its constant association with man that it is a frequent visitor to towns and cities where it is a common nester in vacant lots under the protection of brush piles and tall weeds.

In the farming districts the China pheasants may be seen in small flocks feeding in the grain fields and potato rows. It naturally keeps near the protection of thick brush along the edges of woodland into which it dives at the approach of danger, trusting to its strong legs for safety rather than to flight, except when surprised at close quarters when it darts to cover with a whirr of wings in a straight-away flight of astonishing swiftness.

While the male pheasant is conspicuous in

its variegated plumage the female and young of the year are dull colored in their pale browns and blacks, spotted and lengthwise streaked in many shades, blending with their environment so well as to make them hard to see as they crouch down in the cover of grass or weeds. The pheasant is rarely found perched above the ground except at night when it will often frequent trees 10 to 30 feet from the ground where it is safe from prowling enemies.

The nest of the China pheasant is hidden in thick grass in grain or pasture fields, or under brush piles in slashings or vacant lots. Like all of the game birds, the young are able to take care of themselves within a few hours after hatching out. While small the young pheasants are fed on insects but upon attaining the half grown stage they are gross feeders on vegetable matter, parents and young often consuming great quantities of grain and garden crops. The male pheasants are very noisy during the breeding season, giving vent to a peculiar cackling crow which may be heard both day and night and often at other times during the year.

Although an introduced species the ring-necked pheasant has become one of the best known birds of the Pacific Coast, a beau-

tiful and interesting member of the game bird group, highly esteemed by sportsmen and bird-lovers alike, a welcome addition to our shores.

FAMILY *TETRAONIDÆ:* GROUSE, SPRUCE PARTRIDGES, PTARMIGAN

297a Sooty grouse, *Dendragapus obscurus fuliginosus.* 17.50

Distribution: Northwest coast region in mountain and heavy timbered districts from Alaska south to California and Nevada. Two closely allied species are Richardson's grouse of the Rocky Mountain region, west to eastern Washington and Oregon; and the Sierra grouse of southern Oregon and the mountains of California; and another species, the Franklin grouse, or "fool hen," of the genus *canachites*, found from southern Alaska to northern Oregon in mountainous districts.

The sooty grouse, blue grouse, wood grouse, mountain grouse or hooter, is a denizen of the mountains, the adjoining foothills and the big wooded hills that are scattered through the valleys of the Northwest. Although often found in the deep woods, where it habitually roosts in the tall firs and spruces, it is more common along the edges of the timber in the

open spaces where wild berries abound, and where the mixed woods are interspersed with pines and other conifers. It frequents the sides of deep canyons and the edges of the streams in the willow thickets where it resorts to drink and to bathe in the backwater of the pools. The sooty grouse is commonly found about the ranches in the hill country, frequently coming into the orchards to pick at the prunes and plums in midsummer. The hooting of the sooty grouse is one of the familiar sounds of the deep woods throughout the year. Although supposed to be a call to its mate it is often heard in the dead of winter when the snow is deep in the hills and the weather at zero point. While hooting it hides in the top of a tall fir or spruce, and the ventriloquial quality of the notes makes it almost impossible to locate the bird. It sounds like *oomp*, *oomp*, *oomp*, *oo*, *oo*, *oo*, *oo*, *oo*, beginning slowly and ending rapidly. In the summer the food of the sooty grouse is composed of the various wild fruits and berries to be found in the wooded districts where it lives, together with crickets, grasshoppers and grubs, and in the winter it is said to live almost exclusively on the tender buds of fir and spruce which it gathers from the tops of the trees. Its nest is placed on the ground in a thick

bunch of grass near the foot of a tree or under a fallen tree top. The eggs are seven to ten in number, creamy white, spotted with brown over the entire surface.

300c Oregon ruffed grouse, *Bonasa umbellus sabini.* 17.50

Distribution: Resident in Pacific Coast districts from British Columbia south to northern California west of the Cascade Mountains. Two closely allied species are the Canadian ruffed grouse of northeastern British Columbia and the eastern parts of Washington and Oregon; and the gray ruffed grouse of the central Rocky Mountain district of the United States, British America and Alaska.

The Oregon ruffed grouse, native pheasant, bush pheasant, partridge, or drummer, is a bird of the forest like the sooty grouse, with similar food and nesting habits. When suddenly flushed its brown mottled plumage and long black-banded tail will distinguish it from all others of the family. It is a commoner bird about the settlements than the sooty grouse, being often met with in the mixed woods in the valleys and along streams. Its scanty nest is hidden under a fallen tree top or in a thick clump of brush at the foot of a

tree. The eggs are seven to thirteen in number, varying from white to buff in color, stained with brown.

FAMILY *COLUMBIDÆ;* PIGEONS AND DOVES

312 Band-tailed pigeon, *Columba fasciata fasciata* 15.50

Distribution: Western North America from British Columbia south over the United States and most of Mexico, and from the Rocky Mountains to the Pacific Coast. It is common in the coast counties of California, Oregon and Washington and in the interior valleys west of the Cascades.

The band-tailed pigeon is the "wild pigeon" of the west, and with the exception of the mourning dove is the only representative found in northwestern North America of about eighty species that are found in the western hemisphere. It is often reported by amateurs as the passenger pigeon, which has been extinct for many years. The latter had a wedged-shaped tail and the underparts were a rich reddish chestnut. In appearance it strongly resembled the mourning dove, especially in its rapid whistling flight. The band-tailed pigeon strongly resembles the

tame pigeon in its manner of flight and habits. It has a square tail, and the white crescent on the back of the neck is a distinctive field mark. It usually goes about in small flocks and may often be seen in the region of farms and orchards perched on the tops of tall trees, from which vantage point it makes raids on young fruit and berries of which it is very fond. When alighting in a tree it does so with a noisy flapping of wings, a characteristic of the species. This is especially noticeable at its roosting place, usually in some dead tree situated in a deep canyon, where it makes a great fuss as it restlessly flies from limb to limb before settling down for the night.

The nest of the band-tailed pigeon is a frail platform of sticks placed in trees or bushes, or on the ground as reported from various places in California. The eggs are two in number, white and equal ended.

316 Mourning dove, *Zenaidura macroura carolinensis.* 13.00

Distribution: North America; breeding on the Pacific Coast from British Columbia south to Mexico. Wintering from southern Oregon to Panama.

The mourning dove, or turtle dove, is a common bird in the cultivated areas of the

Pacific Slope where it may be seen by twos and threes, or in small flocks, feeding in the grain fields and pastures, or gleaning the scattered grain in the stubblefields in the fall, its bobbing head and dainty step making an attractive picture. It may be easily distinguished at sight from the band-tailed pigeon by its smaller size, wedge-shaped tail and rapid whistling flight. The mourning dove is far more common in the southern parts of its range where it may be seen in flocks of hundreds in the central valleys of California or about the large ranches of eastern Washington and Oregon.

Its nest is a frail structure made of twigs, placed indifferently in trees, bushes or on the ground; and is often placed on the top of rail fences, posts and stumps. When the eggs are laid on the ground they are usually placed in any slight depression with only a few bits of dry grass for lining. Its mournful note is a *coo, roo, oo, oo, oo.*

Pigeons are almost always monogamous and their devotion to each other is well known. They may often be seen sitting side by side on the cross arm of a telephone pole along country roads and are rarely found alone at any time. Both parents take turns in incubation and in feeding the young.

FAMILY *SCOLOPACIDÆ:* SNIPES, SANDPIPERS, ETC.

263 Spotted sandpiper, *Actitis macularia.* 7.00

Distribution: Whole of North America, breeding from the Arctic Circle to the Gulf of Mexico; migrating southward over the whole of Mexico, Central America, West Indies and South America to southern Brazil.

The spotted sandpiper, peet-weet, tip-up, or teeter-tail is found along the shores and beaches of lakes, ponds and streams where it seeks its living picking up the tiny forms of marine life to be found there. Except during the nesting season it usually goes about in small flocks. When disturbed it darts out over the water with a startled *peet-weet*, the wings moving so rapidly that the tips seem to be always pointing downward. When it alights it stops so suddenly that it is almost bowled over by the shock. Its dainty dipping motion as it steps along has given it the nick-names of tip-up and teeter-tail.

The small size of the spotted sandpiper, together with its grayish-white underparts, spotted throat and breast and white wing bars, which show plainly when it is flying, make its identification easy. In its winter

plumage, however, the underparts are unmarked.

The nest of the spotted sandpiper is a slight depression in the ground lined with fine grasses. It is usually placed near the protection of a bunch of grass or at the foot of a small bush, though sometimes in the open among the pebbles and driftwood on the beach. The three or four pear-shaped, sharply pointed eggs, thickly mottled with all shades of gray, olive-green and black, look very much like a part of their surroundings.

FAMILY *CHARADRIIDÆ:* PLOVERS

273 Killdeer, *Oxyechus vociferous.* 10.75

Distribution: Whole of temperate North America from southern Canada south to the Gulf of Mexico. Breeding throughout its range. In winter from the southern border of the United States to northern South America.

The killdeer, killdee, or killdee plover is a bird of fresh rather than salt water and may be found about the shores of streams, lakes and ponds from sea level to high mountains. It is also common throughout the country in wet meadows, stubble fields and old pastures where it is a conspicuous figure as it probes for food in the soft ground, and even chases

small grasshoppers and crickets after the manner of other non-aquatic birds. The killdeer is robin size with a conspicuous black band across both breast and neck, and reddish brown upper tail coverts, the latter showing plainly when the bird is flying, or as it alights and daintily lifts its wings for a moment before settling down. When standing motionless, which it does for minutes at a time when it discovers that it is being watched, the bird is almost invisible, its variegated plumage blending with its surroundings to a remarkable degree.

The song or call note of the killdeer is a rapidly uttered *kill-dee, kill-dee*, given on the wing or when standing still. It also has other notes of alarm and contentment of a peculiar churring quality.

During the breeding season it is a noisy bird calling or scolding incessantly as it circles about over the field where its nest may be located. The nest is placed indiscriminately about the shores of streams and ponds or in fields far from water. It is a slight depression in the ground lined with bits of dry grass. The three or four eggs are sharply pointed and heavily mottled with varying shades of gray, olive-green and black to match the debris among which they are laid.

FAMILY *COLYMBIDÆ:* GREBES

6 Pied-billed grebe, *Podilymbus podiceps.* 13.50

Distribution: North and South America except extreme northern and southern parts. Common resident and migrant in Pacific Coast states.

The home of the pied-billed grebe is in shallow ponds full of tall water grass and tules and in the larger lakes and sloughs with reed bordered shores. While many grebes may be found inhabiting the same body of water it is rare to find them nesting near each other as they seem to require more territory than most water birds.

Along with the coot and great blue heron the pied-billed grebe is known to every country boy in America, going under the common names of hell-diver, water-witch and dab-chick in different parts of the country. The peculiar yelping, hollow cry of the grebe is one of the characteristic sounds of the marsh, and when it is taken up and repeated by a dozen other birds at the same time it is a weird sound.

The grebe looks like an almost tail-less duck of a sooty brown color, with yellowish bill encircled with a black band. It will be

seen swimming along the edge of the reeds when it will begin to slowly sink and disappear entirely, to reappear a hundred feet away. Or it will dive suddenly if frightened, coming up in the cover of the grass and tules.

The grebe makes a semi-floating nest of dead tules and marsh grass which are beaten down to form a platform only a few inches above the water. The eggs, three to five in number, are dirty white in color and become much discolored as incubation advances. When the bird leaves the nest it pulls the loose nesting material over to the eggs to hide it during its absence. When surprised on its nest it makes desperate efforts to cover it before slipping into the water and sometimes makes a poor job of it.

FAMILY *RALLIDÆ:* RAILS, GALLINULES, COOTS

221 Coot, *Fulica americana.* 14.00

Distribution: Whole of North America from Alaska to Greenland, south to West Indies, Bermudas and northern South America. Breeding from Texas northward. Resident and migrant in the Pacific Coast states.

The coot or mudhen is one of the common denizens of every marsh bordered pond and lake in the west. It lives in the cover of the

tall marsh grass and tules, feeding along the edges in the mud and slime, probing for the small marine life to be found there. Though shy at times, it may usually be seen swimming about in the open water in small flocks, or standing on a log sunning itself. If frightened, it takes a running start with much pattering of feet along the surface of the water but when once in the air makes good progress. It may be identified at a distance by the bobbing motion of its head as it swims, and its distinctly whitish bill in contrast with its blackish plumage.

Coots are noisy birds and keep the marsh ringing with their cries, especially towards evening or early in the morning. They build their nests in the thick cover of the marsh, more elevated than those of the grebe, and better built of grass and reeds. They lay from five to ten whitish eggs thickly spotted with fine black or brownish dots. The young are black when first hatched and have red bills.

FAMILY *ARDEIDÆ:* HERONS AND EGRETS

194 Great blue heron, *Ardea herodias herodias.* 46.00

Distribution: North America in general from Hudson Bay south to northern South

America. The great blue heron is divided into nearly a dozen geographical varieties scattered over the United States and southward. The northwest coast heron, a dark variety, is found on the coast of British Columbia and on the Queen Charlotte and Vancouver Islands; the California blue heron on the Pacific Coast of Oregon and California, and the Tryganza blue heron in the Great Plains country from the western part of the Mississippi Valley west to eastern Washington, Oregon and California.

The great blue heron, or blue crane, is a common sight along the shores of ponds, lakes and streams in all parts of the United States and almost seems a part of the landscape as one glances across open shallow water in search of the water birds that may be found there.

The great blue heron frequents salt as well as fresh water and is found in large numbers about the bays and estuaries along the coast. Here it may be seen wading in shallow water or standing in its statuesque pose as it watches for fish or other small marine life. It usually fishes in the morning or evening, though at times it may be found standing about in the moonlight or in the middle of the day watching patiently for its prey. It seizes its victim with a sudden thrust of its

sword-like bill, swallowing it head downwards. The heron often captures fish so large that it has difficulty in getting them ashore, and in rare instances has almost lost its life in the struggle with some very large fish.

Although fish is its principal food it also captures meadow mice, frogs, grasshoppers and even small birds. Its flight is rapid and graceful, and when migrating is sometimes very high, but it usually keeps near the ground or water. The heron is at all times vigilant and hard to approach. When wounded it defends itself with its sharp bill and can inflict a dangerous wound. In flying it doubles the neck back between the wings allowing the legs to stick out straight behind. A hoarse croak is the only sound it utters except during the nesting season when its squawking and raucous bellowing is beyond description.

It begins nesting early in April and the young are not fully matured and capable of flying until July. In the treeless parts of its range it nests in bushes about water, and in the absence of these it will build its nest on the ground in a marsh, as in the alkaline lake districts of eastern Washington and Oregon. Along the Pacific Coast and in the valleys the great blue heron nests in colonies in tall trees, usually in firs at a great height. One

such rookery known to the writer has been occupied by several hundred herons for a number of years. Over one hundred and fifty nests are included in the nesting area, several trees containing from ten to seventeen nests each. They are wide flat structures made of sticks and marsh grass which is carried several miles to the nest. The large greenish-blue eggs are three or four in number. Both parents take part in incubation, which lasts nearly thirty days, and both feed the young.

FAMILY *FALCONIDÆ:* FALCONS

360a Desert sparrow hawk, *Falco sparverius phalæna.* 11.00

Distribution: Western United States and British Columbia from the Rocky Mountains to the Pacific, south to Guatemala. Common summer resident on the Pacific Coast.

The sparrow hawk, killy hawk, mouse hawk, or grasshopper hawk is the familiar little falcon of the whole of the United States, and although found in several geographical varieties it is easily recognized in any plumage by its peculiar markings, differing in this respect from all other of the smaller hawks. One strong field mark, or habit, is its characteristic manner of hovering or poising in the

air over some object which seems to promise a meal, and then dropping lightly down upon its prey.

Sparrow hawks are found in open country away from heavy timber, more especially about cultivated fields which offer them a food supply in the shape of mice, grasshoppers and other vermin so closely identified with farming operations. They may be seen perched on dead trees and telephone poles along country roads watching intently for any movement in the grass that may indicate possible quarry. When disturbed they fly leisurely across a field to perch on tree or bush in plain sight, seemingly unafraid of man.

The eggs of the sparrow hawk are laid in natural cavities in trees, but preferably in old woodpecker's holes which are occupied for many years in succession if undisturbed. The eggs are almost round, three or four in number, dull white and thickly spotted with reddish brown.

FAMILY *BUTEONIDÆ:* HAWKS, EAGLES, KITES

337b Western red-tailed hawk, *Buteo borealis calurus.* 22.50

Distribution: Western North America from the Mississippi valley to the Pacific

Coast, south to Guatemala. Common summer resident on the Pacific Slope, casual in winter.

The western red-tailed hawk, chicken hawk, or hen hawk is the largest member of the family that frequents the coast valleys on the Pacific Slope. It is common from sea level to high mountains and may be seen slowly winging its way overhead in ever widening circles as it watches for its prey below.

It has none of the dash of the smaller hawks, nor does it attack birds as do the sharp-shinned, the Cooper or the rare goshawk, but lives mostly on small rodents and snakes which it captures by quietly dropping down on them unawares. The red-tailed hawk will sit for hours at a time on some favorite perch, usually a tall tree along a stream, perhaps in the vicinity of its nest, and make short excursions back and forth across the valley returning to the same spot to eat its captured prey.

As it slowly circles above the tree tops it displays its fan-shaped tail which is colored a rich reddish brown, crossed by several narrow black bands. The bird itself will look almost blackish but varies greatly in the adult plumage, the females and young of the year lacking the reddish tail.

The favorite nesting site of the red-tailed hawk in the Northwest is in a tall cottonwood or alder tree along river bottoms, though it is found in many situations from the flat valley to well up in the mountains. In the drier parts of California it places its nest in the sycamores growing along the hillsides. Its nest is made of large sticks and smaller twigs, mixed towards the center with grass, moss, green leaves and other soft materials, and sometimes a few feathers. The eggs are usually three in number, dull white, boldly spotted with varying shades of reddish brown. The young are slow to acquire their perfect plumage, being long full grown before the red appears upon the tail.

332 Sharp-shinned hawk, *Accipiter velox.* 12.00

Distribution: North America in general, south to Panama. Breeds throughout its range.

The sharp-shinned hawk, or bird hawk, is not common along the Pacific Coast. It frequents mixed woods and open farming districts where it may be seen skimming along only a few feet from the ground, or just over the tops of bushes and low trees along the edges of open woods and clearings in search

of its prey. Ordinarily its flight is leisurely but once in pursuit of a bird it dashes in and out through the densest thickets with the greatest ease and swiftness. No matter how its intended victim doubles and twists in its efforts to escape, the sharp-shinned hawk is equally quick to follow and rarely fails to capture its quarry.

It may easily be distinguished from the sparrow hawk by its manner of flight and entirely different coloration. The sparrow hawk is a common sight hovering over its prey in the open field, or sitting on trees and bushes watching for any movement in the grass that may betray a field mouse, lizard or grasshopper which are its favorite foods. On the other hand, the sharp-shinned hawk is never seen hunting in this manner but depends on surprising its prey by a sudden dash into the midst of a flock of small birds, bearing one to the ground before it can escape.

Its color is bluish gray above with the underparts white, heavily barred and spotted with reddish brown. Its tail is long and narrow with three or four blackish bands and a white tip.

The sharp-shinned hawk builds its nest indiscriminately in the old nests of crow,

magpie or squirrel and the natural cavities in trees and cliffs. When it builds for itself the nest is made of sticks with a lining of grass, moss, leaves and bark, placed at all elevations in conifers.

333 Cooper hawk, *Accipiter cooperi.* 17.00

Distribution: Temperate North America at large and southward. Wintering from about latitude 40 south to southern Mexico.

The Cooper hawk, chicken hawk, hen hawk, or blue darter in colors and changes of plumage is practically the same as the sharp-shinned, differing only in size, averaging about three inches longer. It is the common "chicken hawk" of the United States, a hawk of great audacity, preying on birds up to the size of grouse and poultry. Once it gets a taste of a farmer's chickens it will return again and again with the greatest boldness and must be shot to stop its depredations.

Its medium size, long slender build and swift flight will mark the Cooper hawk so that its identification should be comparatively easy. The Cooper hawk builds its nest in tall forest trees from twenty-five to fifty feet from the ground. The nest is used from year to year and becomes a large pile of

sticks and rubbish. In many cases the bird remodels a nest built by another hawk, a crow or squirrel.

The favorite haunts of the Cooper hawk are moderately timbered districts interspersed with cultivated fields and meadows, but it is also found in the more extensive and heavily wooded mountain regions, and on the open treeless plains of the West where its nest may be found placed in low willows along streams and in rare instances on the ground.

The Cooper hawk is never a common bird in the West, being far more abundant east of the Rockies.

FAMILY *STRIGIDÆ:* HORNED OWLS

366 Long-eared owl, *Asio wilsonianus.* 14.50

Distribution: Temperate North America from Newfoundland to southern Alaska, and south to the southern border of the United States. Winters over the greater part of its range and southward into Mexico.

The long-eared owl lives in dense woods where it hides in the day and hunts at night. Because of its habits it is seldom seen. Its food consists of rats and mice and other

small animal life, with an occasional bird to vary its diet. Its nest is placed in hollow trees, cavities in rocks and in old hawks' or crows' nests.

367 Short-eared owl, *Asio flammeus.* 15.50

Distribution: Entire western hemisphere except the Galapagos Islands and part of the West Indies, and also throughout the eastern hemisphere excepting Australia. Practically resident wherever found and breeding throughout its range.

The short-eared owl, or marsh owl, differs from all others of the family in its habits of living. It is a marsh bird, hiding in the tall grass during bright days but at dusk or during cloudy weather it hawks about over the marshes for its food, which consists of mice and rats and other small rodents. It also catches grasshoppers and large crickets. Its nest is built of sticks lined with grass and feathers and is placed on the ground in a marsh or wet meadow.

375c Dusky horned owl, *Bubo virginianus saturatus.* 22.00

Distribution: Pacific Coast district from northern California through western Oregon, Washington and British Columbia to southern Alaska. Four closely allied species

are the western horned owl, found from the Mississippi Valley west to Nevada, southeastern Oregon, Wyoming and Montana to central Alberta; California horned owl of California north to south central Oregon; coast horned owl of the coast counties of northern California, and the northwestern horned owl of Idaho, eastern Oregon, Washington and central British Columbia to southern Alaska.

The big horned owl, hoot owl, or cat owl frequents heavy timber, hiding during the day in dense thickets away from sunlight, and coming out at dusk to beat over the open spaces on hillside and valley in search of its prey which consists of animals and birds up to the size of rabbits, ground squirrels and skunks, and game birds, smaller land birds and poultry. In spite of the fact that it does considerable damage to bird life it is highly beneficial as a destroyer of rodent pests and for this reason should be protected.

The horned owl begins laying in January even in the colder parts of its range. Its nest is placed indifferently in hollow trees, in an old hawk's or crow's nest and sometimes in a crevice in a cliff, or in a cave. Horned owls are much less in evidence on the Pacific Coast than they are east of the Rockies,

probably because of the denser timber in the mountains of the West rather than disparity of numbers. In the thick timber along river bottoms a few pairs of horned owls may be found nesting, and it is no doubt these few individuals that are found raiding the chicken yards in the dead of night. In disposition the big horned owl is fierce and untamable, striking savagely at its captor when taken and refusing to be on friendly terms even after long captivity. In this respect it differs from nearly all others of the family.

373d Kennicott screech owl, *Otus asio kennicotti.* 9.00

Distribution: Northwest coast region including Oregon, Washington and British Columbia north to Sitka. Closely allied species include the Macfarlane screech owl, found from western Montana west through Idaho to southern British Columbia, eastern Washington, Oregon and northeastern California; and the California screech owl of California and north to south central Oregon.

The screech owl is divided into thirteen geographical varieties scattered from Maine to California and from Alaska to the Gulf of Mexico. The Kennicott screech owl is the northwestern form and is identical with

all of the others in food and nesting habits. It is a bird of great economic value living almost entirely on vermin of all kinds, rats, mice, roaches and other noxious pests, rarely attacking birds of any kind. Its peculiar tremulous and barking call notes are among the familiar sounds of warm summer nights in both city and country. It lays its eggs in old woodpeckers' holes and in natural cavities in trees and dead stubs from ten to fifty feet from the ground.

379a California pygmy owl, *Glaucidium gnoma californicum.* 7.00

Distribution: From southern California north through eastern Oregon, Washington and Idaho to southern British Columbia. Two closely allied species are the coast pygmy owl of the humid coast districts of California, Oregon, Washington and British Columbia, and the Vancouver pygmy owl of Vancouver Island.

The pygmy owl is often found flying about in the daylight hours preying upon small birds among whom it is very destructive. It is about half the size of the screech owl, being the smallest of the northwestern owls and on this account may be easily identified at sight. The pygmy owl lays its eggs in old wood-

peckers' holes or in natural cavities in trees like its larger cousin the screech owl.

FAMILY *ALUCONIDÆ:* BARN OWLS

365 Barn owl, *Aluco pratincola.* 17.00

Distribution: Cosmopolitan. Found in the greater part of the United States and Mexico, more common in the southern parts of its range.

The barn owl is the only member of its family that is found in the United States. In plumage it is distinct in appearance from all our owls. The general color is a tawny or orange brown, clouded or marbled with ashy white. The underparts vary all the way from tawny to almost pure white. The feathers are soft and downy. The triangular facial disk is unusual, and the eyes are comparatively small and black.

The barn owl is so strictly a bird of the night, and keeps so well hidden during the day, that it may be fairly common in districts where it is rarely seen or reported. It is fairly common in California in certain districts but thins out northerly until it becomes rare in northern Oregon and southern Washington. It inhabits wooded settled districts and is resident wherever found. It breeds

naturally in hollow trees but is also found occupying barn lofts, belfrys, towers and caves. Three to nine eggs are laid, at varying intervals, so that a brood of young when hatched out will show a great variation in size according to age, as much as a week or ten days intervening between the eldest and youngest.

The barn owl is the most important economically to the farmer of any of the family. Its food consists of rats, mice, gophers, ground squirrels and insects of all kinds, and rarely a rabbit or bird. The amount of vermin it will dispose of in a season is out of all proportion to its size and in common with most of the family it should be protected by the farmer for the good it does. A pair of barn owls about the farmstead are worth a dozen cats. They spend the night silently flitting about the farm buildings or over the fields picking up great numbers of the little rodents so destructive to farm crops and asking no pay but a chance to live.

FAMILY *CUCULIDÆ:* ANIS, ROAD-RUNNERS, CUCKOOS

385 Road-runner, *Geococcy californianus.* 22.00

Distribution: From Brownsville, Texas, to San Diego, California, and from Central

California, Nevada and Kansas south across the tablelands of Mexico.

The road-runner, chaparral cock, snake-killer, ground cuckoo, or lizard bird is a remarkable bird belonging to the cuckoo family. It is generally resident and breeds wherever found, except in the extreme northern parts of its range. It spends most of its time on the ground in search of food, and it frequents the drier desert tracts along river valleys and low foothills covered by cactus, yuccas and thorny underbrush. Its food consists almost entirely of animal matter such as lizards, beetles, grasshoppers, small snakes, the smaller rodents and sometimes young birds. The road-runner builds its nest in April; a large flat structure about twelve inches in diameter and six inches deep, made of sticks lined with grass, feathers, bark, snake skins and roots. The nest is placed variously in mesquite, cactus and other thorny brush that may be available. Road-runners are rather shy and suspicious birds and may not often be seen even where comparatively common. They are rarely seen in large numbers, one or two pairs with their young being the usual number found together at any one time.

The road-runner has an interesting number of call notes, one of which sounds like the

cooing of a dove, another like the hen calling her chickens together where some food has been discovered, the rapidly uttered *dack, dack, dack*, repeated several times. It also makes a peculiar sound by snapping its bill together rapidly. When suddenly alarmed it trusts to its legs to escape, running surprisingly fast but when about to be overtaken it will double on its tracks and dive into the underbrush and disappear. It flies with ease and swiftness considering its short wings, its long tail acting as a rudder when it makes a sudden turn.

The road-runner is most abundant along the southern border of the United States, thinning out northward. It is almost two feet in length, one half of which is tail. It is one of the most remarkable and interesting birds imaginable with its many unusual traits and its grotesque appearance. Coues calls it a combination of chicken and magpie. The young can be easily domesticated and make interesting pets, having many of the uncanny tricks of a crow. Although usually shy it will sometimes become a regular visitor to the chicken yard to pick up the scraps of animal matter and destroy all sorts of vermin about the ranch.

The road-runner belongs to a family of

over two hundred species that are scattered all over the world, only half a dozen of which belong to North America north of the Mexican border. It is closely related to the tree cuckoos, the yellow-billed and the black-billed cuckoos of the whole of the United States. In the March-April *Bird-Lore* for 1915 Finley tells of his many interesting experiences with the road-runner. He found it one of the wariest and wisest of birds and a never ending source of interest and enjoyment.

SYSTEMATIC SYNOPSIS OF LIVING NORTH AMERICAN BIRDS TO AND INCLUDING THE FAMILIES

Class Aves: Birds.

Sub-Class Carinate: (Embracing all living birds except *Ratitæ*.)

Order *Pygopodes*. Diving Birds.

Suborder *Colymbi*. Grebes.

Family *Colymbidæ*. Grebes.

Suborder *Cepphi*. Loons and Auks.

Family *Gaviidæ*. Loons.

Family *Alcidæ*. Auks, Murres and Puffins.

Order *Longipennes*. Long-winged Swimmers.

Family *Stercorariidæ*. Skuas and Jaegers.

Family *Laridæ*. Gulls and Terns.

Family *Rynchopidæ*. Skimmers.

Order *Tubinares*. Tube-nosed Swimmers.

Family *Diomedeidæ*. Albatrosses.

Family *Procellariidæ*. Fulmars, Shearwaters and Petrels.

Order *Steganopodes*. Totipalmate Swimmers.

Family *Phæthontidæ*. Tropic Birds.

Family *Sulidæ*. Gannets.

Family *Anhingidæ*. Darters.

Family *Phalacrocoracidæ*. Cormorants.

Family *Pelecanidæ*. Pelicans.

Family *Fregatidæ*. Man-o'-war-birds.

Order *Anseres*. Lamellirostral Swimmers.

Family *Anatidæ*. Ducks, Geese and Swans.

Order *Odontoglossæ*. Lamellirostral Grallatores.

Family *Phœnicopteridæ*. Flamingoes.

Order *Herodiones*. Herons, Storks, Ibises, etc.
Suborder *Ibides*. Spoonbills and Ibises.
Family *Ibididæ*. Ibises.
Suborder *Ciconiæ*. Storks, etc.
Family *Ciconiidæ*. Storks and Wood Ibises.
Suborder *Herodii*. Herons, Egrets and Bitterns.
Family *Ardeidæ*. Herons, Bitterns, etc.
Order *Paludicolæ*. Cranes, Rails, etc.
Suborder *Grues*. Cranes, Courlans, etc.
Family *Gruidæ*. Cranes.
Family *Aramidæ*. Courlans.
Suborder *Ralli*. Rails, Gallinules, Coots, etc.
Family *Rallidæ*. Rails, Gallinules and Coots.
Order *Limicolæ*. Shore Birds.
Family *Phalaropodidæ*. Phalaropes.
Family *Recurvirostridæ*. Avocets and Stilts.
Family *Scolopacidæ*. Snipes, Sandpipers, etc.
Family *Charadriidæ*. Plovers.
Family *Aphrizidæ*. Surf-birds and Turnstones.
Family *Hæmatopodidæ*. Oyster-catchers.
Family *Jacanidæ*. Jacanas.
Order *Gallinæ*. Gallinaceous Birds.
Suborder *Phasiani*. Pheasants, Grouse, Partridges, Quails, etc.
Family *Odontophoridæ*. Bobwhites, Quails, etc.
Family *Tetraonidæ*. Grouse, Spruce Partridges, Ptarmigans, etc.
Family *Meleagridæ*. Turkeys.
Suborder *Penelopes*. Curassows and Guans.
Family *Gracidæ*. Curassows and Guans.
Order *Columbæ*. Pigeons and Doves.
Family *Columbidæ*. Pigeons and Doves.
Order *Raptores*. Birds of Prey.
Suborder *Sarcorhamphi*. American Vultures.
Family *Cathartidæ*. American Vultures.
Suborder *Falcones*. Vultures, Falcons, Hawks, Buzzards, Eagles, Kites, Harriers, etc.
Family *Buteonidæ*. Hawks, Eagles, Kites, etc.

Family *Falconidæ*. Falcons, Caracaras, etc.
Family *Pandionidæ*. Ospreys.
Suborder *Striges*. Owls.
Family *Aluconidæ*. Barn Owls.
Family *Strigidæ*. Horned Owls, etc.
Order *Psittaci*. Parrots, Macaws, Paroquets, etc.
Family *Psittacidæ*. Parrots, Macaws and Paroquets.
Order *Coccyges*. Cuckoos, etc.
Suborder *Cuculi*. Cuckoos, etc.
Family *Cuculidæ*. Cuckoos, Anis, etc.
Suborder *Trogones*. Trogons.
Family *Trogonidæ*. Trogons.
Suborder *Alcyones*. Kingfishers.
Family *Alcedinidæ*. Kingfishers.
Order *Pici*. Woodpeckers, Wrynecks, etc.
Family *Picidæ*. Woodpeckers.
Order *Macrochires*. Goatsuckers, Swifts, etc.
Suborder *Caprimulgi*. Goatsuckers, etc.
Family *Caprimulgidæ*. Goatsuckers, etc.
Suborder *Cypseli*. Swifts.
Family *Micropodidæ*. Swifts.
Suborder *Trochili*. Hummingbirds.
Family *Trochilidæ*. Hummingbirds.
Order *Passeres*. Perching Birds.
Suborder *Clamatores*. Songless Perching Birds.
Family *Cotingidæ*. Cotingas.
Family *Tyrannidæ*. Tyrant Flycatchers.
Suborder *Oscines*. Song Birds.
Family *Alaudidæ*. Larks.
Family *Corvidæ*. Crows, Jays, Magpies, etc.
Family *Sturnidæ*. Starlings.
Family *Icteridæ*. Blackbirds, Orioles, etc.
Family *Fringillidæ*. Finches, Sparrows, etc.
Family *Tangaridæ*. Tanagers.
Family *Hirundinidæ*. Swallows.
Family *Bombycillidæ*. Waxwings.
Family *Ptilogonatidæ*. Silky Flycatchers.

Family *Laniidæ*. Shrikes.
Family *Vireonidæ*. Vireos.
Family *Coerebidæ*. Honey Creepers.
Family *Mniotiltidæ*. Wood Warblers.
Family *Motacillidæ*. Wagtails.
Family *Cinclidæ*. Dippers.
Family *Mimidæ*. Thrashers, Mockingbirds, etc.
Family *Troglodytidæ*. Wrens.
Family *Certhiidæ*. Creepers.
Family *Sittidæ*. Nuthatches.
Family *Paridæ*. Titmice.
Family *Chamæidæ*. Wren-Tits.
Family *Sylviidæ*. Warblers, Kinglets, Gnatcatchers, etc.
Family *Turdidæ*. Thrushes, Solitaires, Stonechats, Bluebirds, etc.

LIST OF BIRDS FOUND IN BRITISH COLUMBIA, WASHINGTON, OREGON AND CALIFORNIA

This list is based upon the 1910 Check-List of the American Ornithologists' Union, modified in some instances by later information in more up-to-date lists for British Columbia and Oregon generously furnished by Mr. Francis Kermode, Director of the Provincial Museum, Victoria, B. C., and Mr. Stanley G. Jewett of the United States Biological Survey, Portland, Oregon.

It is not possible with so long a list to give any data on the range, comparative abundance or seasonal status of the species. In numbers they vary all the way from very rare to abundant. The occurrence of some species is irregular in any given locality and the absolute range of many species is still to be worked out by further observation and reports.

The much hoped for new edition of the A. O. U. Check-List will undoubtedly reveal many new sub-species and changes in the distribution of western birds. In the meantime the author trusts the list of Pacific Coast birds herein contained will prove of help to the bird student. It

must be remembered, however, that this list is only intended for amateurs and others who will welcome such a condensed list for quick reference.

The numbers are the numbers of the A. O. U. Check-List.

The common names are given in roman type.

The scientific names in italics.

These are followed by the abbreviations of the states where the birds are found.

(1) Western grebe, *Æchmophorus occidentalis*, B. C., Wash., Ore., Cal.

(2) Holbœll grebe, *Colymbus holboelli*, B. C., Wash., Ore., Cal.

(3) Horned grebe, *Colymbus auritus*, B. C., Wash., Ore., Cal.

(4) Eared grebe, *Colymbus nigricollis californicus*, B. C., Wash., Ore., Cal.

(6) Pied-billed grebe, *Podilymbus podiceps*, B. C., Wash., Ore., Cal.

(7) Loon, *Gavia immer*, B. C., Wash., Ore., Cal.

(8) Yellow-billed loon, *Gavia adamsi*, B. C.

(9) Black-throated loon, *Gavia arctica*, B. C.

(10) Pacific loon, *Gavia pacifica*, B. C., Wash., Ore., Cal.

(11) Red-throated loon, *Gavia stellata*, B. C., Wash., Ore., Cal.

(12) Tufted puffin, *Lunda cirrhata*, B. C., Wash., Ore., Cal.

(14) Horned puffin, *Fratercula corniculata*, B. C., Cal.

(15) Rhinoceros auklet, *Cerorhinca monocerata*, B. C., Wash., Ore., Cal.

(16) Cassin auklet, *Ptychoramphus aleuticus*, B. C., Wash., Ore., Cal.

(17) Paroquet auklet, *Phaleris psittacula*, B. C., Wash., Ore., Cal.

(20) Least auklet, *Æthia pusilla*, B. C., Wash.

(21) Ancient murrelet, *Synthliboramphus antiquus*, B. C., Wash., Ore., Cal.

(23) Marbled murrelet, *Brachyramphus marmoratus*, B. C., Wash., Ore., Cal.

(25) Xantus murrelet, *Brachyramphus hypoleucus*, Cal.

(29) Pigeon guillemot, *Cepphus columbia*, B. C., Wash., Ore., Cal.

(30a) California murre, *Uria troille californica*, B. C., Wash., Ore., Cal.

(35) Skua, *Megalestris skua*, Cal.

(36) Pomarine jaeger, *Stercorarius pomarinus*, B. C., Wash., Ore., Cal.

(37) Parasitic jaeger, *Stercorarius parasiticus*, B. C., Wash., Ore., Cal.

(38) Long-tailed jaeger, *Stercorarius longicaudus*, B. C., Ore., Cal.

(39) Ivory gull, *Pagophila alba*, B. C.

(40a) Pacific kittiwake, *Rissa tridactyla pollicaris*, B. C., Wash., Ore., Cal.

(42) Glaucous gull, *Larus hyperboreus*, Ore., Cal.

(44) Glaucous-winged gull, *Larus glaucescens*, B. C., Wash., Ore., Cal.

(49) Western gull, *Larus occidentalis*, B. C., Wash., Ore., Cal.

(51) Herring gull, *Larus argentatus*, B. C., Wash., Ore., Cal.

(53) California gull, *Larus californicus*, B. C. Wash., Ore., Cal.

(54) Ring-billed gull, *Larus delawarensis*, B. C., Wash., Ore., Cal.

(55) Short-billed gull, *Larus brachyrhynchus*, B. C., Wash., Ore., Cal.

(57) Heermann gull, *Larus heermanni*, B. C., Wash., Ore., Cal.

(59) Franklin gull, *Larus franklini*, Cal.

(60) Bonaparte gull, *Larus philadelphia*, B. C., Wash., Ore., Cal.

(62) Sabine gull, *Xema sabini*, B. C., Wash., Ore., Cal.

(64) Caspian tern, *Sterna caspia*, Ore., Cal.

(65) Royal tern, *Sterna maxima*, Cal.

(66) Elegant tern, *Sterna elegans*, Cal.

(69) Forster tern, *Sterna forsteri*, Wash., Ore., Cal.

(70) Common tern, *Sterna hirundo*, B. C., Wash., Ore., Cal.

(71) Arctic tern, *Sterna paradisæa*, B. C., Wash., Ore., Cal.

(74) Least tern, *Sterna antillarum*, Cal.

(77) Black tern, *Hydrochelidon nigra surinamensis*, B. C., Wash., Ore., Cal.

(81) Black-footed albatross, *Diomedea nigripes*, Wash., Ore., Cal.

(82) Short-tailed albatross, *Diomedea albatrus*, B. C., Wash., Ore., Cal.

(83) Yellow-nosed albatross, *Thalassogeron culminatus*, Ore.

(84) Sooty albatross, *Phœbetria palpebrata*, Ore.

(85) Giant fulmar, *Macronectes giganteus*, Ore.

(86b) Pacific fulmar, *Fulmarus glacialis glupischa*, B. C., Wash., Ore., Cal.

(86.1) Rodgers fulmar, *Fulmarus rodgersi*, B. C., Wash., Ore., Cal.

(87) Slender-billed fulmar, *Priocella glacialoides*, Ore., Cal.

(91) Pink-footed shearwater, *Puffinus creatopus*, Ore., Cal.

(93) Black-vented shearwater, *Puffinus opisthomelas*, B. C., Wash., Cal.

(95) Sooty shearwater, *Puffinus griseus*, Ore.

(96) Slender-billed shearwater, *Puffinus tenuirostris*, B. C., Wash., Ore., Cal.

(96.2) New Zealand shearwater, *Puffinus bulleri*, Cal.

(102) Pintado petrel, *Daption capense*, Cal.

(105) Forked-tailed petrel, *Oceanodroma furcata*, B. C., Wash., Ore., Cal.

(105.2) Kaeding petrel, *Oceanodroma kaedingi*, Wash., Ore., Cal.

(106) Leach petrel, *Oceanodroma leucorhoa*, B. C.

(107) Black petrel, *Oceanodroma melania*, Cal.

(108) Ashy petrel, *Oceanodroma homochroa*, Cal.

(108.1) Socorro petrel, *Oceanodroma socorroensis*, Cal.

(120b) White-crested cormorant, *Phalacrocorax auritus cincinatus*, B. C., Wash.

(120c) Farallon cormorant, *Phalacrocorax auritus albociliatus*, Ore., Cal.

(122) Brandt cormorant, *Phalacrocorax penicillatus*, B. C., Wash., Ore., Cal.

(123a) Violet-green cormorant, *Phalacrocorax pelagicus robustus*, B. C., Wash., Ore.

(123b) Baird cormorant, *Phalacrocorax pelagicus resplendens*, Wash., Ore., Cal.

(125) White pelican, *Pelecanus erythrorhynchos*, B. C., Wash., Ore., Cal.

(127) California brown pelican, *Pelecanus californicus*, B. C., Wash., Ore., Cal.

(128) Man-o'-war bird, *Fregata aquila*, Cal.

(129) Merganser, *Mergus americanus*, B. C., Wash., Ore., Cal.

(130) Red-breasted merganser, *Mergus serrator*, B. C., Wash., Ore., Cal.

(131) Hooded merganser, *Lophodytes cucullatus*, B. C., Wash., Ore., Cal.

(132) Mallard, *Anas platyrhynchos*, B. C., Wash., Ore., Cal.

(135) Gadwall, *Chaulelasmus streperus*, B. C., Wash., Ore., Cal.

(136) European widgeon, *Mareca penelope*, B. C., Wash., Ore., Cal.

(137) Baldpate, *Mareca americana*, B. C., Wash., Ore., Cal.

(138) European teal, *Nettion crecca*, Cal.

(139) Green-winged teal, *Nettion carolinense*, B. C., Wash., Ore., Cal.

(140) Blue-winged teal, *Querquedula discors*, B. C., Wash., Ore., Cal.

(141) Cinnamon teal, *Querquedula cyanoptera*, B. C., Wash., Ore., Cal.

(142) Shoveller, *Spatula clypeata*, B. C., Wash., Ore., Cal.

(143) Pintail, *Dafila acuta*, B. C., Wash., Ore., Cal.

(144) Wood duck, *Aix sponsa*, B. C., Wash., Ore., Cal.

(146) Redhead, *Marila americana*, B. C., Wash., Ore., Cal.

(147) Canvas-back, *Marila valisineria*, B. C., Wash., Ore., Cal.

(148) Scaup duck, *Marila marila*, B. C., Wash., Ore., Cal.

(149) Lesser scaup duck, *Marila affinis*, B. C., Wash., Ore., Cal.

(150) Ring-necked duck, *Marila collaris*, B. C., Wash., Ore., Cal.

(151) Golden-eye, *Clangula clangula americana*, B. C., Wash., Ore., Cal.

(152) Barrow golden-eye, *Clangula islandica*, B. C., Wash., Ore., Cal.

(153) Buffle-head, *Charitonetta albeola*, B. C., Wash., Ore., Cal.

(154) Old-squaw, *Harelda hyemalis*, B. C., Wash., Ore., Cal.

(155) Harlequin duck, *Histrionicus histrionicus*, B. C., Wash., Ore., Cal.

(162) King eider, *Somateria spectabilis*, Cal.

(163) Scoter, *Oidemia americana*, B. C., Wash., Ore., Cal.

(165) White-winged scoter, *Oidemia deglandi*, B. C., Wash., Ore., Cal.

(166) Surf scoter, *Oidemia perspicillata*, B. C., Wash., Ore., Cal.

(167) Ruddy duck, *Erismatura jamaicensis*, B. C., Wash., Ore., Cal.

(169) Snow goose, *Chen hyperboreus hyperboreus*, B. C., Wash., Ore., Cal.

(170) Ross goose, *Chen rossi*, B. C., Wash., Ore., Cal.

(171a) White-fronted goose, *Anser albifrons gambeli*, B. C., Wash., Ore., Cal.

(172) Canada goose, *Branta canadensis canadensis*, B. C., Wash., Ore., Cal.

(172a) Hutchins goose, *Branta canadensis hutchinsi*, B. C., Wash., Ore., Cal.

(172b) White-cheeked goose, *Branta canadensis occidentalis*, B. C., Wash., Ore., Cal.

(172c) Cackling goose, *Branta canadensis minima*, B. C., Wash., Ore., Cal.

(174) Black brant, *Branta nigricans*, B. C., Wash., Ore., Cal.

(176) Emperor goose, *Philacte canagica*, B. C., Wash., Ore., Cal.

(177) Black-bellied tree duck, *Dendrocygna autumnalis*, Cal.

(178) Fulvous tree duck, *Dendrocygna bicolor*, B. C., Wash., Cal.

(180) Whistling swan, *Olor columbianus*, B. C., Wash., Ore., Cal.

(181) Trumpeter swan, *Olor buccinator*, B. C., Wash., Ore., Cal.

(183) Roseate spoonbill, *Ajaia ajaja*, Cal.

(187) White-faced glossy ibis, *Plegadis guarauna*, B. C., Wash., Ore., Cal.

(188) Wood ibis, *Mycteria americana*, Cal.

(190) Bittern, *Botaurus lentiginosus*, B. C., Wash., Ore., Cal.

(191) Least bittern, *Ixobrychus exilis*, Ore., Cal.

(194) Great blue heron, *Ardea herodias herodias*, B. C., Wash., Ore., Cal.

(194a) Northwestern coast heron, *Ardea herodias fannini*, B. C., Wash., Ore.

(196) Egret, *Herodias egretta*, Wash., Ore., Cal.

(197) Snowy heron, *Egretta candidissima candidissima*, Ore., Cal.

(201c) Anthony green heron, *Butorides virescens anthonyi*, Ore., Cal.

(202) Black-crowned night heron, *Nycticorax nycticorax nævius*, Wash., Ore., Cal.

(205) Little brown crane, *Grus canadensis*, B. C., Wash., Ore., Cal.

(206) Sandhill crane, *Grus mexicana*, B. C., Wash., Ore., Cal.

(210) California clapper rail, *Rallus obsoletus*, Wash., Cal.

(210.1) Light-footed rail, *Rallus levipes*, Cal.

(212) Virginia rail, *Rallus virginianus*, B. C., Wash., Ore., Cal.

(214) Sora rail, *Porzana carolina*, B. C., Wash., Ore., Cal.

(215) Yellow rail, *Coturnicops noveboracensis*, Ore., Cal.

(216.1) Farallon rail, *Creciscus coturniculus*, Wash., Ore., Cal.

(219) Florida gallinule, *Gallinula galeata*, Cal.

(221) Coot, *Fulica americana*, B. C., Wash., Ore., Cal.

(222) Red phalarope, *Phalaropus fulicarius*, B. C., Wash., Ore., Cal.

(223) Northern phalarope, *Lobipes lobatus*, B. C., Wash., Ore., Cal.

(224) Wilson phalarope, *Steganopus tricolor*, B. C., Wash., Ore., Cal.

(225) Avocet, *Recurvirostra americana*, Wash., Ore., Cal.

(226) Black-necked stilt, *Himantopus mexicanus*, Ore., Cal.

(230) Wilson snipe, *Gallinago delicata*, B. C., Wash., Ore., Cal.

(232) Long-billed dowitcher, *Macrorhamphus griseus scolopaceus*, B. C., Wash., Ore., Cal.

(234) Knot, *Tringa canutus*, B. C., Wash., Ore., Cal.

(235a) Aleutian sandpiper, *Arquatella maritima couesi*, Ore.

(238) Sharp-tailed sandpiper, *Pisobia aurita*, B. C.

(239) Pectoral sandpiper, *Pisobia maculata*, B. C., Wash., Ore., Cal.

(241) Baird sandpiper, *Pisobia bairdi*, B. C., Wash., Ore., Cal.

(242) Least sandpiper, *Pisobia minutilla*, B. C., Wash., Ore., Cal.

(243a) Red-backed sandpiper, *Pelidna alpina sakhalina*, B. C., Wash., Ore., Cal.

(246) Semipalmated sandpiper, *Ereunetes pusillus*, B. C., Wash.

(247) Western sandpiper, *Ereunetes mauri*, B. C., Wash., Ore., Cal.

(248) Sanderling, *Calidris leucophæa*, B. C., Wash., Ore., Cal.

(249) Marbled godwit, *Limosa fedoa*, B. C., Wash., Ore., Cal.

(254) Greater yellow-legs, *Totanus melanoleucus*, B. C., Wash., Ore., Cal.

(255) Yellow-legs, *Totanus flavipes*, B. C., Wash., Ore., Cal.

(256a) Western solitary sandpiper, *Helodromas solitarius cinnamomeus*, B. C., Wash., Ore., Cal.

(258a) Western willet, *Catoptrophorus semipalmatus inornatus*, B. C., Wash., Ore., Cal.

(259) Wandering tattler, *Heteractitis incanus*, B. C., Wash., Ore., Cal.

(261) Upland plover, *Bartramia longicauda*, B. C., Wash., Ore., Cal.

(262) Buff-breasted sandpiper, *Tryngites subruficollis*, B. C., Wash.

(263) Spotted sandpiper, *Actitis macularia*, B. C., Wash., Ore., Cal.

(264) Long-billed curlew, *Numenius americanus*, B. C., Wash., Ore., Cal.

(265) Hudsonian curlew, *Numenius hudsonicus*, B. C., Wash., Ore., Cal.

(270) Black-bellied plover, *Squatarola squatarola*, B. C., Wash., Ore., Cal.

(272) Golden plover, *Charadrius dominicus dominicus*, B. C., Wash., Ore., Cal.

(272a) Pacific golden plover, *Charadrius dominicus fulvus*, B. C.

(273) Killdeer, *Oxyechus vociferus*, B. C., Wash., Ore., Cal.

(274) Semipalmated plover, *Ægialitis semipalmata*, B. C., Wash., Ore., Cal.

(278) Snowy plover, *Ægialitis nivosa*, Wash., Ore., Cal.

(280) Wilson plover, *Ochthodromus wilsonius*, Cal.

(281) Mountain plover, *Podasocys montanus*, Cal.

(282) Surf-bird, *Aphriza virgata*, B. C., Wash., Ore., Cal.

(283a) Ruddy turnstone, *Arenaria interpres morinella*, B. C., Wash., Ore., Cal.

(284) Black turnstone, *Arenaria melanocephala*, B. C., Wash., Ore., Cal.

(286.1) Frazar oyster-catcher, *Hæmatopus frazari*, Cal.

(287) Black oyster-catcher, *Hæmatopus bachmani*, B. C., Wash., Ore., Cal.

(289) Bobwhite, *Colinus virginianus virginianus*, Wash., Ore., Cal.

(292) Mountain quail, *Oreortyx picta picta*, B. C., Wash., Ore., Cal.

(292a) Plumed quail, *Oreortyx picta plumifera*, Wash, Ore., Cal.

(292b) San Pedro quail, *Oreortyx picta confinis*, Cal.

(294) California quail, *Lophortyx californica californica*, B. C., Wash., Ore., Cal.

(294a) Valley quail, *Lophortyx californica vallicola*, Wash., Ore., Cal.

(295) Gambel quail, *Lophortyx gambeli*, Cal.

(297a) Sooty grouse, *Dendragapus obscurus fuliginosus*, B. C., Wash., Ore., Cal.

(297b) Richardson grouse, *Dendragapus obscurus richardsoni*, B. C., Ore.

(297c) Sierra grouse, *Dendragapus obscurus sierræ*, Ore., Cal.

(298b) Alaska spruce partridge, *Canachites canadensis osgoodi*, B. C.

(299) Franklin grouse, *Canachites franklini*, B. C., Wash., Ore.

(300a) Canada ruffed grouse, *Bonasa umbellus togata*, B. C., Wash., Ore.

(300b) Gray ruffed grouse, *Bonasa umbellus umbelloides*, B. C.

(300c) Oregon ruffed grouse, *Bonasa umbellus sabini*, B. C., Wash., Ore., Cal.

(301) Willow ptarmigan, *Lagopus lagopus lagopus*, B. C.

(304) White-tailed ptarmigan, *Lagopus leucurus leucurus*, B. C., Wash.

(308) Sharp-tailed grouse, *Pediœcetes phasianellus phasianellus*, B. C.

(308a) Columbian sharp-tailed grouse, *Pediœcetes phasianellus columbianus*, B. C., Wash., Ore., Cal.

(309) Sage hen, *Centrocercusu rophasianus*, B. C., Wash., Ore., Cal.

(312) Band-tailed pigeon, *Columba fasciata fasciata*, B. C., Wash., Ore., Cal.

(316) Mourning dove, *Zenaidura macroura carolinensis*, B. C., Wash., Ore., Cal.

(319) White-winged dove, *Melopelia asiatica*, Wash., Cal.

(320a) Mexican ground dove, *Chœmepelia passerina pallescens*, Cal.

(324) California vulture, *Gymnogyps californianus*, Ore., Cal.

(325) Turkey vulture, *Cathartes aura septentrionalis*, B. C., Wash., Ore., Cal.

(328) White-tailed kite, *Elanus leucurus*, Cal.

(331) Marsh hawk, *Circus hudsonius*, B. C., Wash., Ore., Cal.

(332) Sharp-shinned hawk, *Accipiter velox*, B. C., Wash., Ore., Cal.

(333) Cooper hawk, *Accipiter cooperi*, B. C., Wash., Ore., Cal.

(334) Goshawk, *Astur atricapillus atricapillus*, B. C., Wash., Ore., Cal.

(334a) Western goshawk, *Astur atricapillus striatulus*, B. C., Wash., Ore., Cal.

(335) Harris hawk, *Parabuteo unicinctus harrisi*, Cal.

(337b) Western red-tailed hawk, *Buteo borealis calurus*, B. C., Wash., Ore., Cal.

(339b) Red-bellied hawk, *Buteo lineatus elegans*, B. C., Wash., Ore., Cal.

(342) Swainson hawk, *Buteo swainsoni*, B. C., Wash., Ore., Cal.

(347a) Rough-legged hawk, *Archibuteo lagopus sancti-johannis*, B. C., Wash., Ore., Cal.

(348) Ferruginous rough-legged hawk, *Archibuteo ferrugineus*, Wash., Ore., Cal.

(349) Golden eagle, *Aquila chrysætos*, B. C., Wash., Ore., Cal.

(352) Bald eagle, *Haliæetus leucocephalus leucocephalus*, B. C., Wash., Ore., Cal.

(352a) Northern bald eagle, *Haliæetus leucocephalus alascanus*, B. C.

(353) White gyrfalcon, *Falco islandus*, B. C.

(354) Gray gyrfalcon, *Falco rusticolus rusticolus*, Wash., Ore.

(355) Prairie falcon, *Falco mexicanus*, B. C., Wash., Ore., Cal.

(356a) Duck hawk, *Falco peregrinus anatum*, B. C., Wash., Ore., Cal.

(356b) Peale falcon, *Falco peregrinus pealei*, B. C., Wash., Ore.

(357) Pigeon hawk, *Falco columbarius columbarius*, B. C., Wash., Ore., Cal.

(357a) Black pigeon hawk, *Falco columbarius suckleyi*, B. C., Wash., Ore., Cal.

(357b) Richardson pigeon hawk, *Falco columbarius richardsoni*, B. C.

(360) Sparrow hawk, *Falco sparverius sparverius*, B. C.

(360a) Desert sparrow hawk, *Falco sparverius phalæna*, B. C., Wash., Ore., Cal.

(364) Osprey, *Pandion haliætus carolinensis*, B. C., Wash., Ore., Cal.

(365) Barn owl, *Aluco pratincola*, Wash., Ore., Cal.

(366) Long-eared owl, *Asio wilsonianus*, B. C., Wash., Ore., Cal.

(367) Short-eared owl, *Asio flammeus*, B. C., Wash., Ore., Cal.

(369) Spotted owl, *Strix occidentalis occidentalis*, Cal.

(369a) Northern spotted owl, *Strix occidentalis caurina*, B. C., Wash., Ore., Cal.

(370) Great gray owl, *Scotiaptex nebulosa nebulosa*, B. C., Wash., Ore., Cal.

(371) Richardson owl, *Cryptoglaux funerea richardsoni*, B. C., Wash., Ore.

(372) Saw-whet owl, *Cryptoglaux acadica acadica*, B. C., Wash., Ore., Cal.

(372a) Northwestern saw-whet owl, *Cryptoglaux acadica scotæa*, B. C., Wash.

(373c) California screech owl, *Otus asio bendirei*, Ore., Cal.

(373d) Kennicott screech owl, *Otus asio kennicotti*, B. C., Wash., Ore.

(373h) MacFarlane screech owl, *Otus asio macfarlanei*, B. C., Wash., Ore.

(374a) Dwarf screech owl, *Otus flammeolus idahoensis*, B. C., Wash.

(375a) Western horned owl, *Bubo virginianus pallescens*, B. C., Wash., Ore., Cal.

(375b) Arctic horned owl, *Bubo virginianus subarcticus*, B. C., Wash., Ore.

(375c) Dusky horned owl, *Bubo virginianus saturatus*, B. C., Wash., Ore., Cal.

(375d) Pacific horned owl, *Bubo virginianus pacificus*, Ore., Cal.

(376) Snowy owl, *Nyctea nyctea*, B. C., Wash., Ore., Cal.

(377a) Hawk owl, *Surnia ulula caparoch*, B. C., Wash.

(378) Burrowing owl, *Speotyto cunicularia hypogæa*, B. C., Wash., Ore., Cal.

(379) Pygmy owl, *Glaucidium gnoma gnoma*, B. C., Wash., Ore., Cal.

(379a) California pygmy owl, *Glaucidium gnoma californicum*, B. C., Wash., Ore., Cal.

(381) Elf owl, *Micropallas whitneyi*, Cal.

(385) Road-runner, *Geococcyx californianus*, Cal.

(387a) California cuckoo, *Coccyzus americanus occidentalis*, B. C., Wash., Ore., Cal.

(390) Belted kingfisher, *Ceryle alcyon*, B. C., Wash., Ore., Cal.

(393c) Harris woodpecker, *Dryobates villosus harrisi*, B. C., Wash., Ore., Cal.

(393d) Cabanis woodpecker, *Dryobates villosus hyloscopus*, Cal.

(393e) Rocky mountain hairy woodpecker, *Dryobates Villosus monticola*, Wash., Ore.

(393f) Queen Charlotte woodpecker, *Dryobates villosus picoideus*, B. C.

(394a) Gairdner woodpecker, *Dryobates pubescens gairdneri*, B. C., Wash., Ore., Cal.

(394b) Batchelder woodpecker, *Dryobates pubescens homorus*, B. C., Wash., Ore., Cal.

(394e) Willow woodpecker, *Dryobates pubescens turati*, Cal.

(396a) San Lucas Woodpecker, *Dryobates scalaris lucasanus*, Cal.

(397) Nuttall woodpecker, *Dryobates nuttalli*, Ore., Cal.

(399) White-headed woodpecker, *Xenopicus albolarvatus*, B. C., Wash., Ore., Cal.

(400) Arctic three-toed woodpecker, *Picoides arcticus*, B. C., Wash., Ore., Cal.

(401a) Alaska three-toed woodpecker, *Picoides americanus fasciatus*, B. C., Wash.

(401b) Alpine three-toed woodpecker, *Picoides americanus dorsalis*, B. C., Wash., Ore.

(402a) Red-naped sapsucker, *Sphyrapicus varius nuchalis*, B. C., Wash., Ore., Cal.

(403) Red-breasted sapsucker, *Sphyrapicus ruber ruber*, Cal.

(403a) Northern red-breasted sapsucker, *Sphyrapicus ruber notkensis*, B. C., Wash., Ore., Cal.

(404) Williamson sapsucker, *Sphyrapicus thyroideus*, B. C., Wash., Ore., Cal.

(405a) Northern pileated woodpecker, *Phlœotomus pileatus abieticola*, B. C., Wash., Ore., Cal.

(407a) California woodpecker, *Melanerpes formicivorus bairdi*, Ore., Cal.

(408) Lewis woodpecker, *Asyndesmus lewisi*, B. C., Wash., Ore., Cal.

(411) Gila woodpecker, *Centurus uropygialis*, Cal.

(412a) Northern flicker, *Colaptes auratus luteus*, B. C., Wash., Ore., Cal.

(413) Red-shafted flicker, *Coplates cafer collaris*, B. C., Wash., Ore., Cal.

(413a) Northwestern flicker, *Colaptes cafer saturatior*, B. C., Wash., Ore., Cal.

(414) Gilded flicker, *Colaptes chrysoides*, Cal.

(418) Poor-will, *Phalænoptilus nuttalli nuttalli*, B. C., Wash., Ore., Cal.

(418b) Dusky poor-will, *Phalænoptilus nuttalli californicus*, Cal.

(420a) Western nighthawk, *Chordeiles virginianus henryi*, B. C., Wash.

(420d) Pacific nighthawk, *Chordeiles virginianus hesperis*, B. C., Wash., Ore., Cal.

(421) Texas nighthawk, *Chordeiles acutipennis texensis*, Cal.

(422) Black swift, *Cypseloides niger borealis*, B. C., Wash., Ore., Cal.

(424) Vaux swift, *Chætura vauxi*, B. C., Wash., Ore., Cal.

(425) White-throated swift, *Æronautes melanoleucus*, B. C., Wash., Ore., Cal.

(429) Black-chinned hummingbird, *Archilochus alexandri*, B. C., Wash., Ore., Cal.

(430) Costa hummingbird, *Calypte costæ*, Cal.

(431) Anna hummingbird, *Calypte anna*, Cal.

(432) Broad-tailed hummingbird, *Selasphorus platycercus*, Ore.

(433) Rufous hummingbird, *Selasphorus rufus*, B. C., Wash., Ore., Cal.

(434) Allen hummingbird, *Selasphorus alleni*, Cal.

(436) Calliope hummingbird, *Stellula calliope*, B. C., Wash., Ore., Cal.

(444) Kingbird, *Tyrannus tyrannus*, B. C., Wash., Ore., Cal.

(447) Western kingbird, *Tyrannus verticalis*, B. C., Wash., Ore., Cal.

(448) Cassin kingbird, *Tyrannus vociferans*, Ore., Cal.

(454) Ash-throated flycatcher, *Myiarchus cinerascens cinerascens*, Wash., Ore., Cal.

(457) Say phœbe, *Sayornis sayus*, B. C., Wash., Ore., Cal.

(458) Black phœbe, *Sayornis nigricans*, Ore., Cal.

(459) Olive-sided flycatcher, *Nuttallornis borealis*, B. C., Wash., Ore., Cal.

(462) Western wood pewee, *Myiochanes richardsoni richardsoni*, B. C., Wash., Ore., Cal.

(464) Western flycatcher, *Empidonax difficilis difficilis*, B. C., Wash., Ore., Cal.

(464a) San Lucas flycatcher, *Empidonax difficilis cineritius*, Cal.

(466) Traill flycatcher, *Empidonax trailli trailli*, B. C., Wash., Ore., Cal.

(468) Hammond flycatcher, *Empidonax hammondi*, B. C., Wash., Ore., Cal.

(469) Wright flycatcher, *Empidonax wrighti*, B. C., Wash., Ore., Cal.

(469.1) Gray flycatcher, *Empidonax griseus*, Ore., Cal.

(474a) Pallid horned lark, *Otocoris alpestris arcticola*, B. C., Wash., Ore.

(474c) Desert horned lark, *Otocoris alpestris leucolæma*, Cal.

(474e) California horned lark, *Otocoris alpestris actia*, Cal.

(474f) Ruddy horned lark, *Otocoris alpestris rubea*, Cal.

(474g) Streaked horned lark, *Otocoris alpestris strigata*, Wash., Ore., Cal.

(474i) Dusky horned lark, *Otocoris alpestris merrilli*, B. C., Wash., Ore., Cal.

(474m) Island horned lark, *Otocoris alpestris insularis*, Cal.

(475) Magpie, *Pica pica hudsonia*, B. C., Wash., Ore., Cal.

(476) Yellow-billed magpie, *Pica nuttalli*, Cal.

(478) Steller jay, *Cyanocitta stelleri stelleri*, B. C., Wash., Ore.

(478a) Blue-fronted jay, *Cyanocitta stelleri frontalis*, Ore., Cal.

(478c) Black-headed jay, *Cyanocitta stelleri annectens*, B. C., Wash., Ore.

(478d) Queen Charlotte jay, *Cyanocitta stelleri carlottæ*, B. C.

(478e) Coast jay, *Cyanocitta stelleri carbonacea*, Ore., Cal.

(480) Woodhouse jay, *Aphelocoma woodhousei*, Ore., Cal.

(481) California jay, *Aphelocoma californica californica*, Wash., Ore., Cal.

(481b) Belding jay, *Aphelocoma californica obscura*, Cal.

(481.1) Santa Cruz jay, *Aphelocoma insularis*, Cal.

(484) Canada jay, *Perisoreus canadensis canadensis*, B. C.

(484a) Rocky Mountain jay, *Perisoreus canadensis capitalis*, B. C., Wash., Ore.

(485) Oregon jay, *Perisoreus obscurus obscurus*, B. C., Wash., Ore., Cal.

(485a) Gray jay, *Perisoreus obscurus griseus*, Wash., Ore., Cal.

(486) Raven, *Corvus corax sinuatus*, Ore., Cal.

(486a) Northern raven, *Corvus corax prinhipalis*, B. C., Wash., Ore.

(488b) Western crow, *Corvus brachyrhynchos cesperis*, B. C., Wash., Ore., Cal.

(489) Northwestern crow, *Corvus caurinus*, B. C., Wash., Ore.

(491) Clarke nutcracker, *Nucifraga columbiana*, B. C., Wash., Ore., Cal.

(492) Piñon jay, *Cyanocephalus cyanocephalus*, Wash., Ore., Cal.

(494) Bobolink, *Dolichonyx oryzivorus*, B. C., Ore., Cal.

(495) Cowbird, *Molothrus ater ater*, B. C., Wash., Ore., Cal.

(495a) Dwarf cowbird, *Molothrus ater obscurus*, Cal.

(497) Yellow-headed blackbird, *Xanthocephalus xanthocephalus*, B. C., Wash., Ore., Cal.

(498a) Sonora red-wing, *Agelaius phœniceus sonoriensis*, Cal.

(498e) San Diego red-wing, *Agelaius phœniceus neutralis*, B. C., Wash., Ore., Cal.

(498f) Northwestern red-wing, *Agelaius phœniceus caurinus*, B. C., Wash., Ore., Cal.

(499) Bicolored red-winged, *Agelaius gubernator californicus*, Ore., Cal.

(500) Tricolored red-wing, *Agelaius tricolor*, Cal.

(501.1) Western meadowlark, *Sturnella neglecta*, B. C., Wash., Ore., Cal.

(504) Scott oriole, *Icterus parisorum*, Cal.

(505a) Arizona hooded oriole, *Icterus cucullatus nelsoni*, Cal.

(508) Bullock oriole, *Icterus bullocki*, B. C., Wash., Ore., Cal.

(509) Rusty blackbird, *Euphagus carolinus*, B. C.

(510) Brewer blackbird, *Euphagus cyanocephalus*, B. C., Wash., Ore., Cal.

(514a) Western evening grosbeak, *Hesperiphona vespertina montana*, B. C., Wash., Ore., Cal.

(515b) California pine grosbeak, *Pinicola enucleator californica*, Cal.

(515c) Alaska pine grosbeak, *Pinicola enucleator alascensis*, B. C., Wash., Ore.

(517a) California purple finch, *Carpodacus purpureus californicus*, Wash., Ore., Cal.

(518) Cassin purple finch, *Carpodacus cassini*, B. C., Wash., Ore., Cal.

(519) House finch, *Carpodacus mexicanus frontalis*, Wash., Ore., Cal.

(519c) San Clemente house finch, *Carpodacus mexicanus clementis*, Cal.

(521) Crossbill, *Loxia curvirostra minor*, B. C., Wash., Ore., Cal.

(522) White-winged crossbill, *Loxia leucoptera*, B. C., Wash., Ore., Cal.

(524) Gray-crowned rosy finch, *Leucosticte tephrocotis tephrocotis*, B. C., Wash., Ore., Cal.

(524a) Hepburn rosy finch, *Leucosticte tephrocotis littoralis*, B. C., Wash., Ore.

(527a) Hoary redpoll, *Acanthis hornemanni exilipes*, B. C.

(528) Redpoll, *Acanthis linaria linaria*, B. C., Wash., Ore., Cal.

(529a) Pale goldfinch, *Astragalinus tristis pallidus*, B. C., Wash., Ore.

(529b) Willow goldfinch, *Astragalinus tristis salicamans*, B. C., Wash., Ore., Cal.

(530a) Green-backed goldfinch, *Astragalinus psaltria hesperophilus*, Ore., Cal.

(531) Lawrence goldfinch, *Astragalinus lawrencei*, Cal.

(533) Pine siskin, *Spinus pinus*, B. C., Wash., Ore., Cal.

(534) Snow bunting, *Plectrophenax nivalis nivalis*, B. C., Wash., Ore.

(536) Lapland longspur, *Calcarius lapponicus lapponicus*, B. C.

(536a) Alaska longspur, *Calcarius lapponicus alascensis*, B. C., Wash., Ore., Cal.

(539) McCown longspur, *Rhynchophanes mccowni*, B. C.

(540a) Western vesper sparrow, *Poœcetes gramineus confinis*, B. C., Wash., Ore., Cal.

(540b) Oregon vesper sparrow, *Poœcetes gramineus affinis*, B. C., Wash., Ore., Cal.

(542) Ælutian savannah sparrow, *Passerculus sandwichensis sandwichensis*, B. C., Wash., Ore., Cal.

(542b) Western savannah sparrow, *Passerculus sandwichensis alaudinus*, B. C., Wash., Ore., Cal.

(542c) Bryant sparrow, *Passerculus sandwichensis bryanti*, Cal.

(543) Belding sparrow, *Passerculus beldingi*, Cal.

(544) Large-billed sparrow, *Passerculus rostratus rostratus*, Cal.

(546a) Western grasshopper sparrow, *Ammodramus savannarum bimaculatus*, B. C., Wash., Ore., Cal.

(552a) Western lark sparrow, *Chondestes grammacus strigatus*, B. C., Wash., Ore., Cal.

(553) Harris sparrow, *Zonotrichia querula*, B. C., Wash., Ore., Cal.

(554) White-crowned sparrow, *Zonotrichia leucophrys leucophrys*, Ore., Cal.

(554a) Gambel sparrow, *Zonotrichia leucophrys gambeli*, B. C., Wash., Ore., Cal.

(554b) Nuttall sparrow, *Zonotrichia leucophrys nuttalli*, B. C., Wash., Ore., Cal.

(557) Golden-crowned sparrow, *Zonotrichia coronata*, B. C., Wash., Ore., Cal.

(558) White-throated sparrow, *Zonotrichia albicollis*, B. C., Wash., Ore., Cal.

(559a) Western tree sparrow, *Spizella monticola ochracea*, B. C., Wash., Ore., Cal.

(560a) Western chipping sparrow, *Spizella passerina arizonæ*, B. C., Wash., Ore., Cal.

(561) Clay-colored sparrow, *Spizella pallida*, B. C.

(562) Brewer sparrow, *Spizella breweri*, B. C., Wash., Ore., Cal.

(565) Black-chinned sparrow, *Spizella atrogularis*, Cal.

(567) Slate-colored junco, *Junco hyemalis hyemalis*, B. C., Wash., Ore., Cal.

(567a) Oregon junco, *Junco hyemalis oreganus*, B. C., Wash., Ore., Cal.

(567b) Shufeldt junco, *Junco hyemalis connectens*, B. C., Wash., Ore.

(567c) Thurber junco, *Junco hyemalis thurberi*, Ore., Cal.

(567d) Point Piños junco, *Junco hyemalis pinosus*, Cal.

(570b) Gray-headed junco, *Junco phæonotus caniceps*, Cal.

(573a) Desert sparrow, *Amphispiza bilineata deserticola*, Wash., Ore., Cal.

(574) Bell sparrow, *Amphispiza belli*, Cal.

(574.1) Sage sparrow, *Amphispiza nevadensis nevadensis*, Wash., Ore., Cal.

(574.1b) California sage sparrow, *Amphispiza nevadensis canescens*, Cal.

(580) Rufous-crowned sparrow, *Aimophila ruficeps ruficeps*, Cal.

(581a) Desert song sparrow, *Melospiza melodia fallax*, Cal.

(581b) Mountain song sparrow, *Melospiza melodia montana*, Ore., Cal.

(581c) Heermann song sparrow, *Melospiza melodia heermanni*, Cal.

(581d) Samuels song sparrow, *Melospiza melodia samuelis*, Cal.

(581e) Rusty song sparrow, *Melospiza melodia morphna*, B. C., Wash., Ore., Cal.

(581f) Sooty song sparrow, *Melospiza melodia rufina*, B. C., Wash., Ore., Cal.

(581h) Santa Barbara song sparrow, *Melospiza melodia graminea*, Cal.

(581i) San Clemente song sparrow, *Melospiza melodia clementæ*, Cal.

(581k) Merrill song sparrow, *Melospiza melodia merrilli*, B. C., Wash., Ore., Cal.

(581l) Alameda song sparrow, *Melospiza melodia pusillula*, Cal.

(581m) San Diego song sparrow, *Melospiza melodia cooperi*, Cal.

(581p) Mendocino song sparrow, *Melospiza melodia cleonensis*, Ore., Cal.

(581s) Suisun song sparrow, *Melospiza melodia maxillaris*, Cal.

(583) Lincoln sparrow, *Melospiza lincolni lincolni*, Wash., Ore., Cal.

(583a) Forbush sparrow, *Melospiza lincolni striata*, B. C., Wash., Ore., Cal.

(585a) Shumagin fox sparrow, *Passerella iliaca unalaschcensis*, B. C., Wash., Ore., Cal.

(585b) Thick-billed fox sparrow, *Passerella iliaca megarhyncha*, Cal.

(585c) Slate-colored fox sparrow, *Passerella iliaca schistacea*, B. C., Wash., Ore., Cal.

(585d) Stephens fox sparrow, *Passerella iliaca stephensi*, Cal.

(585e) Sooty fox sparrow, *Passerella iliaca fuliginosa*, B. C., Wash., Ore., Cal.

(585f) Kadiak fox sparrow, *Passerella iliaca insularis*, B. C., Wash., Ore., Cal.

(585g) Townsend fox sparrow, *Passerella iliaca townsendi*, B. C., Wash., Ore., Cal.

(588a) Spurred towhee, *Pipilo maculatus montanus*, B. C., Wash., Ore., Cal.

(588b) Oregon towhee, *Pipilo maculatus oregonus*, B. C., Wash., Ore., Cal.

(588c) San Clemente towhee, *Pipilo maculatus clementæ*, Cal.

(588d) San Diego towhee, *Pipilo maculatus megalonyx*, Cal.

(591.1) California towhee, *Pipilo crissalis crissalis*, Ore., Cal.

(591.1a) Anthony towhee, *Pipilo crissalis senicula*, Cal.

(592) Abert twohee, *Pipilo aberti*, Cal.

(592.1) Green-tailed towhee, *Oreospiza chlorura*, Wash., Ore., Cal.

(596) Black-headed grosbeak, *Zamelodia melanocephala*, B. C., Wash., Ore., Cal.

(597a) Western blue grosbeak, *Guiraca cærulea lazula*, Cal.

(599) Lazuli bunting, *Passerina amœna*, B. C., Wash., Ore., Cal.

(605) Lark bunting, *Calamospiza melanocorys*, B. C., Cal.

(607) Western tanager, *Piranga ludoviciana*, B. C., Wash., Ore., Cal.

(611a) Western martin, *Progne subis hesperia*, B. C., Wash., Ore., Cal.

(612) Cliff swallow, *Petrochelidon lunifrons lunifrons*, B. C., Wash., Ore., Cal.

(613) Barn swallow, *Hirundo erythrogastra*, B. C., Wash., Ore., Cal.

(614) Tree swallow, *Iridoprocne bicolor*, B. C., Wash., Ore., Cal.

(615) Northern violet-green swallow, *Tachycineta thalassina lepida*, B. C., Wash., Ore., Cal.

(616) Bank swallow, *Riparia riparia*, B. C., Wash., Ore., Cal.

(617) Rough-winged swallow, *Stelgidopteryx serripennis*, B. C., Wash., Ore., Cal.

(618) Bohemian waxwing, *Bombycilla garrula*, B. C., Wash., Ore., Cal.

(619) Cedar waxwing, *Bombycilla cedrorum*, B. C., Wash., Ore., Cal.

(620) Phainopepla, *Phainopepla nitens*, Cal.

(621) Northern shrike, *Lanius borealis*, B. C., Wash., Ore., Cal.

(622a) White-rumped shrike, *Lanius ludovicianus excubitorides*, Wash., Ore., Cal.

(622b) California shrike, *Lanius ludovicianus gambeli*, B. C., Wash., Ore., Cal.

(622c) Island shrike, *Lanius ludovicianus anthonyi*, Cal.

(624) Red-eyed vireo, *Vireosylva olivacea*, B. C., Wash., Ore., Cal.

(627a) Western warbling vireo, *Vireosylva gilva swainsoni*, B. C., Wash., Ore., Cal.

(629a) Cassin vireo, *Lanivireo solitarius cassini*, B. C., Wash., Ore., Cal.

(632) Hutton vireo, *Vireo huttoni huttoni*, B. C., Wash., Ore., Cal.

(633a) Least vireo, *Vireo belli pusillus*, Cal.

(634) Gray vireo, *Vireo vicinior*, Cal.

(645a) Calaveras warbler, *Vermivora rubricapilla gutturalis*, B. C., Wash., Ore., Cal.

(646) Orange-crowned warbler, *Vermivora celata celata*, B. C., Wash., Ore., Cal.

(646a) Lutescent warbler, *Vermivora celata lutescens*, B. C., Wash., Ore., Cal.

(646b) Dusky warbler, *Vermivora celata sordida*, Cal.

(647) Tennessee warbler, *Vermivora peregrina*, B. C.

(652b) Alaska yellow warbler, *Dendroica æstiva rubiginosa*, B. C., Wash., Ore., Cal.

(652c) California yellow warbler, *Dendroica æstiva brewsteri*, B. C., Wash., Ore., Cal.

(655) Myrtle warbler, *Dendroica coronata*, B. C., Wash., Ore., Cal.

(656) Audubon warbler, *Dendroica auduboni auduboni*, B. C., Wash., Ore., Cal.

(657) Magnolia warbler, *Dendroica magnolia*, B. C., Wash., Ore., Cal.

(661) Black-poll warbler, *Dendroica striata*, B. C.

(665) Black-throated gray warbler, *Dendroica nigrescens*, B. C., Wash., Ore., Cal.

(668) Townsend warbler, *Dendroica townsendi*, B. C., Wash., Ore., Cal.

(669) Hermit warbler, *Dendroica occidentalis*, B. C., Wash., Ore., Cal.

(675a) Grinnell water-thrush, *Seiurus noveboracensis notabilis*, B. C., Wash.

(680) Macgillivray warbler, *Oporornis tolmiei*, B. C., Wash., Ore., Cal.

(681a) Western yellow-throat, *Geothlypis trichas occidentalis*, Wash., Ore., Cal.

(681c) Pacific yellow-throat, *Geothlypis trichas arizela*, B. C., Wash., Ore., Cal.

(681e) Salt marsh yellow-throat, *Geothlypis trichas sinuosa*, Cal.

(683a) Long-tailed chat, *Icteria virens longicauda*, B. C., Wash., Ore., Cal.

(685a) Pileolated warbler, *Wilsonia pusilla pileolata*, B. C., Wash., Ore., Cal.

(685b) Golden pileolated warbler, *Wilsonia pusilla chryseola*, B. C., Wash., Ore., Cal.

(687) Redstart, *Setophaga ruticilla*, B. C., Wash., Ore., Cal.

(697) Pipit, *Anthus rubescens*, B. C., Wash., Ore., Cal.

(701) Dipper, *Cinclus mexicanus unicolor*, B. C., Wash., Ore., Cal.

(702) Sage thrasher, *Oreoscoptes montanus*, Wash., Ore., Cal.

(703a) Western mockingbird, *Mimus polyglottos leucopterus*, Cal.

(704) Catbird, *Dumetella carolinensis*, B. C., Wash., Ore.

(708) Bendire thrasher, *Toxostoma bendirei*, Cal.

(710) California thrasher, *Toxostoma redivivum*, Cal.

(711) Leconte thrasher, *Toxostoma lecontei lecontei*, Cal.

(712) Crissal thrasher, *Toxostoma crissale*, Cal.

(713) Cactus wren, *Heleodytes brunneicapillus couesi*, Cal.

(713a) Bryant cactus wren, *Heleodytes brunneicapillus bryanti*, Cal.

(715) Rock wren, *Salpinctes obsoletus obsoletus*, B. C., Wash., Ore., Cal.

(715a) San Nicolas rock wren. *Salpinctes obsoletus pulverius*, Cal.

(717a) Cañon wren, *Catherpes mexicanus conspersus*, Cal.

(717b) Dotted cañon wren, *Catherpes mexicanus punctulatus*, Wash., Ore., Cal.

(719a) Vigors wren, *Thryomanes bewicki spilurus*, Cal.

(719b) Baird wren, *Thryomanes bewicki bairdi*, Cal.

(719d) San Diego wren, *Thryomanes bewicki charienturus*, Cal.

(719e) Seattle wren, *Thryomanes bewicki calophonus*, B. C., Wash., Ore.

(719.1) San Clemente wren, *Thryomanes leucophrys*, Cal.

(721a) Western house wren, *Troglodytes ædon parkmani*, B. C., Wash., Ore., Cal.

(722a) Western winter wren, *Nannus hiemalis pacificus*, B. C., Wash., Ore., Cal.

(725a) Tule wren, *Telmatodytes palustris paludicola*, B. C., Wash., Ore., Cal.

(725c) Western marsh wren, *Telmatodytes palustris plesius*, Wash., Ore., Cal.

(726b) Rocky mountain creeper, *Certhia familiaris montana*, B. C., Wash., Ore., Cal.

(726c) California creeper, *Certhia familiaris occidentalis*, B. C., Wash., Ore., Cal.

(726d) Sierra creeper, *Certhia familiaris zelotes*, Wash., Ore., Cal.

(727a) Slender-billed nuthatch, *Sitta carolinensis aculeata*, B. C., Wash., Ore., Cal.

(727c) Rocky mountain nuthatch, *Sitta carolinensis nelsoni*, Ore., Cal.

(728) Red-breasted nuthatch, *Sitta canadensis*, B. C., Wash., Ore., Cal.

(730) Pygmy nuthatch, *Sitta pygmæa pygmæa*, B. C., Wash., Ore., Cal.

(730a) White-naped nuthatch, *Sitta pygmæa leuconucha*, Cal.

(733) Plain titmouse, *Bæolophus inornatus inornatus*, Ore., Cal.

(733a) Gray titmouse, *Bæolophus inornatus griseus*, Cal.

(735a) Long-tailed chickadee, *Penthestes atricapillus septentrionalis*, B. C., Wash., Ore.

(735b) Oregon chickadee, *Penthestes atricapillus occidentalis*, B. C., Wash., Ore., Cal.

(738) Mountain chickadee, *Penthestes gambeli gambeli*, B. C., Wash., Ore., Cal.

(738a) Bailey mountain chickadee, *Penthestes gambeli baileyæ*, Ore., Cal.

(740) Hudsonian chickadee, *Penthestes hudsonicus hudsonicus*, B. C.

(741) Chestnut-backed chickadee, *Penthestes rufescens rufescens*, B. C., Wash., Ore., Cal.

(741a) California chickadee, *Penthestes rufescens neglectus*, Cal.

(741b) Barlow chickadee, *Penthestes rufescens barlowi*, Cal.

(742) Wren-tit, *Chamæa fasciata fasciata*, Cal.

(742a) Pallid wren-tit, *Chamæa fasciata henshawi*, Cal.

(742b) Coast wren-tit, *Chamæa fasciata phæa*, Ore., Cal.

(742c) Ruddy wren-tit, *Chamæa fasciata rufula*, Cal.

(743) Bush-tit, *Psaltriparus minimus minimus*, B. C., Wash., Ore., Cal.

(743a) California bush-tit, *Psaltriparus minimus californicus*, Ore., Cal.

(744) Lead-colored bush-tit, *Psaltriparus plumbeus*, Ore., Cal.

(746) Verdin, *Auriparus flaviceps flaviceps*, Cal.

(748a) Western golden-crowned kinglet, *Regulus satrapa olivaceus*, B. C., Wash., Ore., Cal.

(749) Ruby-crowned kinglet, *Regulus calendula calendula*, B. C., Wash., Ore., Cal.

(749a) Sitka kinglet, *Regulus calendula grinnelli*, B. C., Wash., Ore., Cal.

(751a) Western gnatcatcher, *Polioptila cærulea obscura*, Cal.

(752) Plumbeous gnatcatcher, *Polioptila plumbea*, Cal.

(753) Black-tailed gnatcatcher, *Polioptila californica*, Cal.

(754) Townsend solitaire, *Myadestes townsendi*, B. C., Wash., Ore., Cal.

(756a) Willow thrush, *Hylocichla fuscescens salicicola*, B. C., Wash., Ore.

(757) Gray-cheeked thrush, *Hylocichla aliciæ aliciæ*, B. C.

(758) Russet-backed thrush, *Hylocichla ustulata ustulata*, B. C., Wash., Ore., Cal.

(758a) Olive-backed thrush, *Hylocichla ustulata swainsoni*, B. C., Wash., Ore., Cal.

(759) Alaska hermit thrush, *Hylocichla guttata guttata*, B. C., Wash., Ore., Cal.

(759a) Audubon hermit thrush, *Hylocichla guttata auduboni*, Wash., Ore.

(759b) Hermit thrush, *Hylocichla guttata pallasi*, B. C.

(759c) Dwarf hermit thrush, *Hylocichla guttata nanus*, B. C., Wash., Ore., Cal.

(759d) Monterey hermit thrush, *Hylocichla guttata slevini*, Cal.

(759e) Sierra hermit thrush, *Hylocichla guttata sequoiensis*, B. C., Wash., Ore., Cal.

(761) Robin, *Planesticus migratorius migratorius*, B. C.

(761a) Western robin, *Planesticus migratorius propinquus*, B. C., Wash., Ore., Cal.

(763) Varied thrush, *Ixoreus nævius nævius*, B. C., Wash., Ore., Cal.

(763a) Northern varied thrush, *Ixoreus nævius meruloides*, B. C., Wash., Ore., Cal.

(767) Western bluebird, *Sialia mexicana occidentalis*, B. C., Wash., Ore., Cal.

(767b) San Pedro bluebird, *Sialia mexicana anabelæ*, Cal.

(768) Mountain bluebird, *Sialia currucoides*, B. C., Wash., Ore., Cal.

INDEX

Alaska Robin (Varied Thrush), 7–9
Arkansas Kingbird, 60
Audubon Warbler, 26–8

Band-tailed Pigeon, 138–9
Barn Owl, 160–1
Barn Swallow, 57–8
Belted Kingfisher, 107–9
Blackbird, Brewer, 100–1
  Northwestern Red-winged, 98–100
  Yellow-headed, 102–3
Black-headed Grosbeak, 68–70
Black-throated Gray Warbler, 24–5
Bluebird, Mountain, 4–6
  Western, 3–4
Bobolink, 101–2
Bobwhite, 126–9
Bohemian Waxwing, 64–5
Brewer Blackbird, 100–1
Bullock Oriole, 97–8
Bunting, Lazuli, 70–1
Bush-tit, 38–9

California Creeper, 41
  Jay, 112–13
  Purple Finch, 88–90
  Pygmy Owl, 159–60
  Quail, 131–2
  Woodpecker, 123
  Yellow Warbler, 20–1
Cassin Purple Finch, 90–1
Cassin Vireo, 33–5
Cedar Waxwing, 65–7
Chat, long-tailed, 28–9
Chestnut-backed Chickadee, 37–8
Chickadee, Chestnut-backed, 37–8
  Oregon, 35–6
Chipping Sparrow, Western, 82–3
Clarke Nutcracker, 117–18
Cliff Swallow, 53–4
Coast Wren-tit, 39–40
Cooper Hawk, 154-5
Coot, 145–6
Creeper, California, 41
Crossbill, 86–7
Crow, Western, 116–17

Desert Sparrowhawk, 149–50
Dipper (Water Ouzel), 45–7
Dove, Mourning, 139–40

Evening Grosbeak, Western, 94–7

Finch, California Purple, 88–90
  Cassin Purple, 90–1
  Hepburn Rosy, 91–3
Finches:
  Black-headed Grosbeak, 68–70
  California Purple Finch, 88–90
  Cassin Purple Finch, 90–1

Finches—*Continued*
Crossbill, 86–7
Golden Crowned Sparrow, 74–5
Green-backed Goldfinch, 85–6
Hepburn Rosy Finch, 91–3
Lazuli Bunting, 70–1
Nuttall White-crowned Sparrow, 76–7
Oregon Junco, 71–2
Oregon Towhee, 73–4
Oregon Vesper Sparrow, 80–1
Pine Siskin, 87–8
Redpoll, 93–4
Rusty Song Sparrow, 77–8
Townsend Fox Sparrow, 78–9
Western Chipping Sparrow, 82–3
Western Evening Grosbeak, 94–7
Western Lark Sparrow, 80
Western Savannah Sparrow, 81–2
Willow Goldfinch, 83–5
Flicker, Red-shafted, 118–19
Flycatcher, Olive-sided, 61–2
Traill, 62–3
Flycatchers:
Arkansas Kingbird, 60
Kingbird, 59–60
Olive-sided Flycatcher, 61–2
Say Phœbe, 63–4
Traill Flycatcher, 62–3
Western Wood Pewee, 62
Fox Sparrow, Townsend, 78–9

Gairdner Woodpecker, 122–3
Golden-crowned Kinglet, Western, 12–13
Golden-crowned Sparrow, 74–5
Goldfinch, Green-backed, 85–6
Willow, 83–5
Great Blue Heron, 146–9
Grebe, Pied-billed, 144–5
Green-backed Goldfinch, 85–6
Grosbeak, Black-headed, 68–70
Western Evening, 94–7
Grouse, Oregon Ruffed, 137–8
Sooty, 135–7

Harris Woodpecker, 121–2
Hawk, Cooper, 154–5
Sharp-shinned, 152–4
Sparrow, Desert, 149–50
Western Red-tailed, 150–2
Hepburn Rosy Finch, 91–3
Hermit Thrush, Sierra, 11–12
Hermit Warbler, 30–2
Heron, Great Blue, 146–9
Horned Lark, Streaked, 105–6
Horned Owl, Dusky, 156–8
House Wren, Western, 16–17
Hummingbird, Rufous, 47–50

Jay, California, 112-13
Oregon, 111–12
Pinyon, 113–15
Steller, 109–11
Junco, Oregon, 71–2

Kennicott Screech Owl, 158–9
Killdeer, 142–3
Kingbird, 59–60
Arkansas, 60

Kingfisher, Belted, 107–9
Kinglet, Ruby-crowned, 14–15
Western Golden-crowned, 12–13

Lark Sparrow, Western, 80
Lark, Streaked Horned, 105–6
Lazuli Bunting, 70–1
Lewis Woodpecker, 125–6
Long-eared Owl, 155–6
Long-tailed Chat, 28–9
Lutescent Warbler, 23–4

Macgillivray Warbler, 25–6
Magpie, 115–16
Martin, Western, 56–7
Meadowlark, Western, 104–5
Mountain Bluebird, 4–6
Mountain Quail, 129–31
Mourning Dove, 139–40

Nighthawk, Pacific, 50–1
Northern Violet-green Swallow, 55–6
Northwestern Red-winged Blackbird, 98–100
Nutcracker, Clarke, 117–18
Nuthatch, Pygmy, 43–4
Red-breasted, 42–3
Slender-billed, 42
Nuttall White-crowned Sparrow, 76–7

Olive-sided Flycatcher, 61–2
Oregon Chickadee, 35–6
Jay, 111–12
Junco, 71–2
Ruffed Grouse, 137–8
Towhee, 73–4
Vesper Sparrow, 80–1
Oriole, Bullock, 97–8
Ouzel, Water (Dipper), 45–8
Owl, Barn, 160–1
California Pygmy, 159–60
Dusky Horned, 156–8
Kennicott Screech, 158–9
Long-eared, 155–6
Short-eared, 156

Pacific Nighthawk, 50–1
Pacific Yellow-throat Warbler, 21–2
Pewee, Western Wood, 62
Pheasant, Ring-necked (China), 132–5
Phœbe, Say, 63–4
Pied-billed Grebe, 144–5
Pigeon, Band-tailed, 138–9
Pileated Woodpecker, 124–5
Pileolated Warbler, 22–3
Pine Siskin, 87–8
Pinyon Jay, 113–15
Purple Finch, California, 88–90
Cassin, 90–1
Pygmy Nuthatch, 43–4
Owl, California, 159–60

Quail:
Bobwhite, 126–9
California, 131–2
Mountain, 129–31

Red-breasted Nuthatch, 42–3
Sapsucker, 119–21
Redpoll, 93–4
Red-shafted Flicker, 118–19
Red-tailed Hawk, 150–2
Red-winged Blackbird, Northwestern, 98–100
Ring-necked Pheasant (China), 132–5
Road-runner, 161–4
Robin, Alaska (Varied Thrush), 7–9
Western, 6–7

Rosy Finch, Hepburn, 91–3
Rough-winged Swallow, 58–9
Ruby-crowned Kinglet, 14–15
Ruffed Grouse, Oregon, 137–8
Rufous Hummingbird, 47–50
Russet-backed Thrush, 9–10
Rusty Song Sparrow, 77–8

Sandpiper, Spotted, 141–2
Sapsucker, Red-breasted, 119–21
Savanna Sparrow, Western, 81–2
Say Phœbe, 63–4
Screech Owl, Kennicott, 158–9
Seattle Wren, 15–16
Sharp-shinned Hawk, 152–4
Short-eared Owl, 156
Sierra Hermit Thrush, 11–12
Siskin, Pine, 87–8
Slender-billed Nuthatch, 42
Sooty Grouse, 135–7
Sparrow, Golden-crowned, 74–5
  Nuttall White-crowned, 76–7
  Oregon Vesper, 80–1
  Rusty Song, 77–8
  Townsend Fox, 78–9
  Western Chipping, 82–3
  Western Lark, 80
  Western Savanna, 81–2
Sparrowhawk, Desert, 149–50
Steller Jay, 109–11
Streaked Horned Lark, 105–6
Swallows:
  Barn Swallow, 57–8
  Cliff Swallow, 53–4
Swallows—*Continued*
  Northern Violet-green Swallow, 55–6
  Rough-winged Swallow, 58–9
  Tree Swallow, 54
  Western Martin, 56–7
Swift, Vaux, 51–3

Tanager, Western, 67–8
Thrush, Russet-backed, 9–10
  Sierra Hermit, 11–12
  Varied (Alaska Robin), 7–9
Towhee, Oregon, 73–4
Townsend Warbler, 29–30
Traill Flycatcher, 62–3
Tree Swallow, 54
Tule Wren, 19–20

Varied Thrush, (Alaska Robin), 7–9
Vaux Swift, 51–3
Vesper Sparrow, Oregon, 80–1
Violet-green Swallow, Northern, 55–6
Vireo, Cassin, 33–5
  Western Warbling, 32–3

Warblers:
  Audubon Warbler, 26–8
  Black-throated Gray Warbler, 24–5
  California Yellow Warbler, 20–1
  Hermit Warbler, 30–2
  Long-tailed Chat, 28–9
  Lutescent Warbler, 23–4
  Macgillivray Warbler, 25–6
  Pacific Yellow-throat Warbler, 21–2
  Pileolated Warbler, 22–3
  Townsend Warbler, 29–30

Warbling Vireo, Western, 32–3
Water Ouzel (Dipper), 45–7
Waxwing, Bohemian, 64–5
Cedar, 65-7
Western Bluebird, 3–4
Chipping Sparrow, 82–3
Crow, 116–17
Evening Grosbeak, 94–7
Golden-crowned Kinglet, 12–13
House Wren, 16–17
Lark Sparrow, 80
Martin, 56–7
Meadowlark, 104–5
Red-tailed Hawk, 150–2
Robin, 6–7
Savanna Sparrow, 81–2
Tanager, 67–8
Warbling Vireo, 32–3
Winter Wren, 18–19
Wood Pewee, 62
White-crowned Sparrow, Nuttall, 76–7
Willow Goldfinch, 83–5
Winter Wren, Western, 18–19
Wood Pewee, Western, 62
Woodpeckers:
California Woodpecker, 123
Gairdner Woodpecker, 122–3
Harris Woodpecker, 121–2
Lewis Woodpecker, 125–6
Pileated Woodpecker, 124–5
Red-breasted Sapsucker, 119–21
Red-shafted Flicker, 118–19
Wren, Seattle, 15–16
Tule, 19–20
Western House, 16–17
Western Winter, 18–19
Wren-tit, Coast, 39–40

Yellow Warbler, California, 20–21
Yellow-headed Blackbird, 102–3

MOUNTAIN BLUEBIRD WESTERN BLUEBIRD

VARIED THRUSH WESTERN ROBIN

SIERRA HERMIT THRUSH RUSSET-BACKED THRUSH

RUBY-CROWNED KINGLET, FEMALE
MALE

WESTERN GOLDEN-CROWNED KINGLET, MALE
FEMALE

SEATTLE WREN

WESTERN HOUSE WREN

TULE WREN WESTERN WINTER WREN

GOLDEN PILEOLATED WARBLER CALIFORNIA YELLOW WARBLER
PACIFIC YELLOW-THROAT

Male

Macgillivray Warbeer, Female Lutescent Warbler Black-throated Gray Warbler

Long-tailed Chat Audubon Warbler, Male
Female

HERMIT WARBLER. LEFT, MALE. RIGHT, FEMALE
TOWNSEND WARBLER

WESTERN WARBLING VIREO CASSIN VIREO

California Creeper Oregon Chickadee Chestnut-backed Chickadee

PYGMY NUTHATCH
RED-BREASTED NUTHATCH SLENDER-BILLED NUTHATCH

Bush-Tit Coast Wren-Tit

Dipper or Water Ouzel

RUFOUS HUMMINGBIRD. MALE, RIGHT. FEMALE, LEFT

PACIFIC NIGHTHAWK VAUX SWIFT

CLIFF SWALLOW TREE SWALLOW NORTHERN VIOLET-GREEN SWALLOW

WESTERN MARTIN BARN SWALLOW ROUGH-WINGED SWALLOW

OLIVE-SIDED FLYCATCHER TRAILL FLYCATCHER WESTERN WOOD PEWEE

SAY PHOEBE KINGBIRD ARKANSAS KINGBIRD

BOHEMIAN WAXWING CEDAR WAXWING

Male
Bullock Oriole, Female

Male
Western Tanager, Female

MALE
BLACK-HEADED GROSBEAK, FEMALE

FEMALE
LAZULI BUNTING, MALE

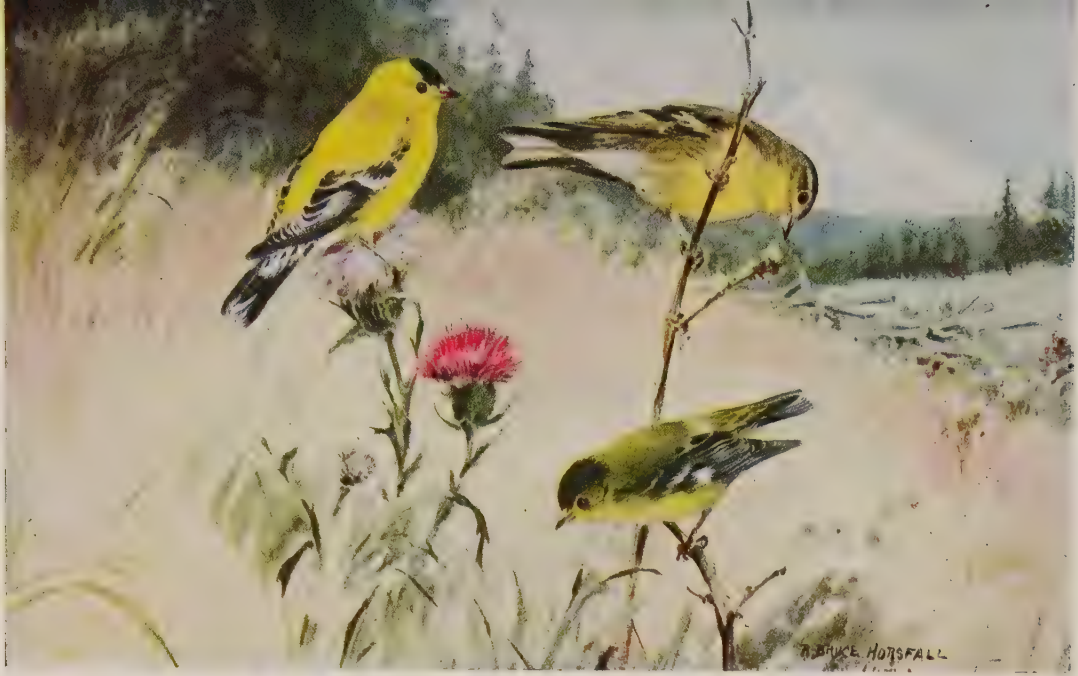
OREGON TOWHEE OREGON JUNCO

GOLDEN-CROWNED SPARROW

NUTTALL WHITE-CROWNED SPARROW

Rusty Song Sparrow Townsend Fox Sparrow Western Lark Sparrow

OREGON VESPER SPARROW WESTERN CHIPPING SPARROW WESTERN SAVANNA SPARROW



Male

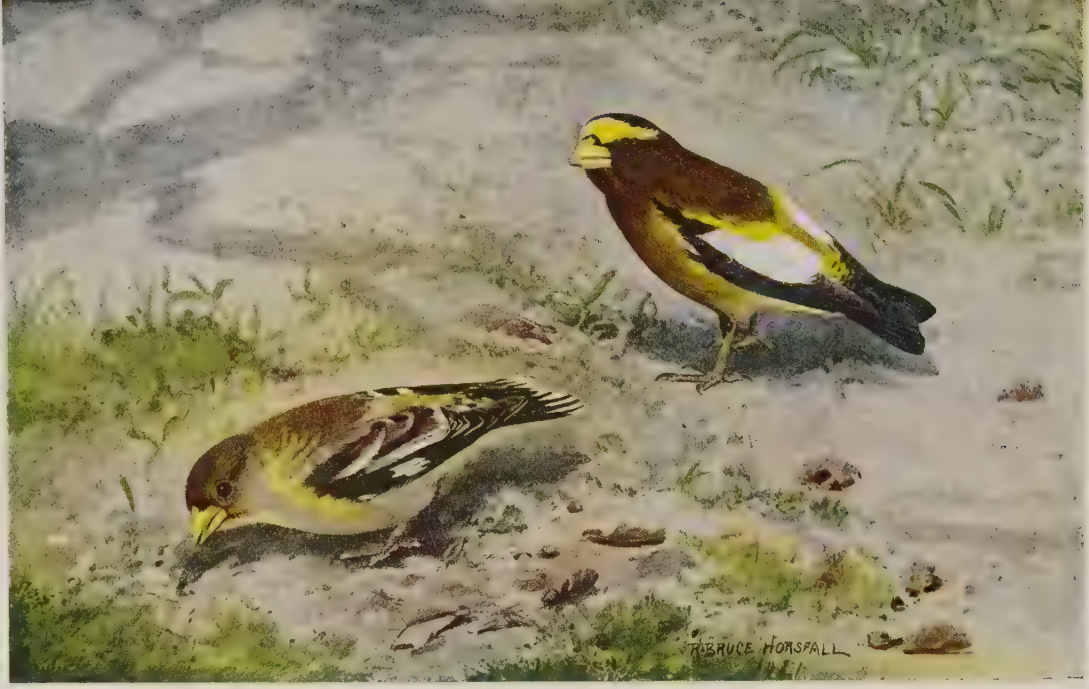
Willow Goldfinch, Female

Green-backed Goldfinch

MALE
CROSSBILL, FEMALE PINE SISKIN

CASSIN PURPLE FINCH, MALE, FEMALE
CALIFORNIA PURPLE FINCH

HEPBURN ROSY FINCH REDPOLL

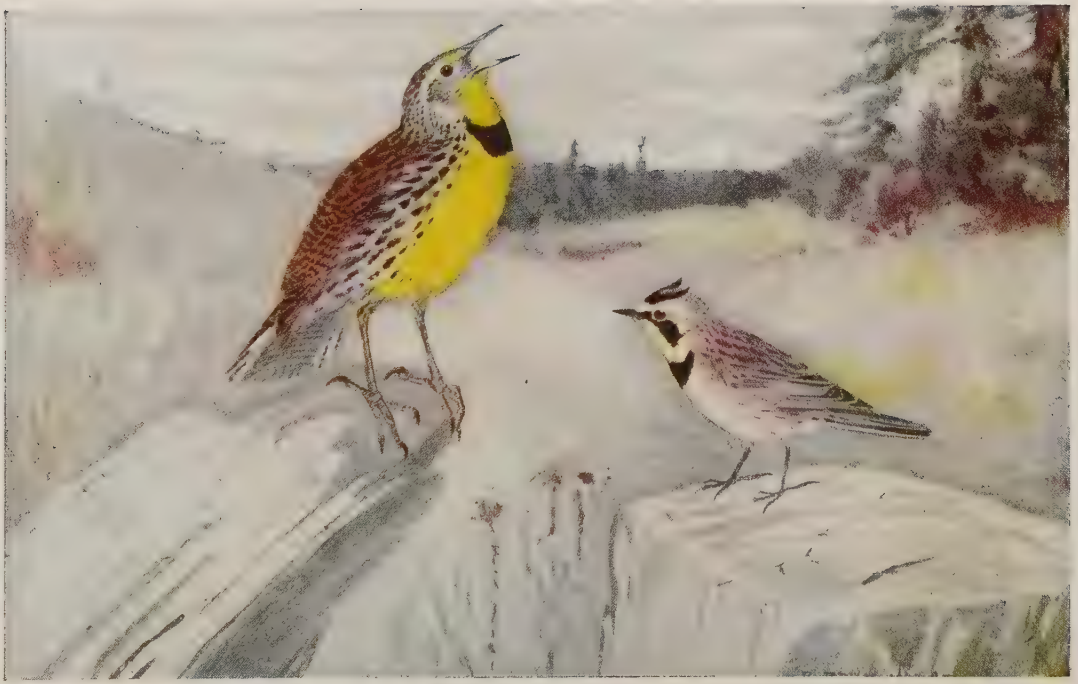


WESTERN EVENING GROSBEAK. RIGHT, MALE. LEFT, FEMALE

NORTHWESTERN RED-WING. LEFT, MALE. RIGHT, FEMALE BREWER BLACKBIRD

YELLOW-HEADED BLACKBIRD

BOBOLINK, MALE
FEMALE



Western Meadowlark Streaked Horned Lark

Male
Belted Kingfisher, Female

OREGON JAY STELLER JAY

PINON JAY CALIFORNIA JAY

Western Crow Magpie Clarke Nutcracker

RED-SHAFTED FLICKER NORTHERN RED-BREASTED SAPSUCKER

GAIRDNER WOODPECKER CALIFORNIA WOODPECKER

PILEATED WOODPECKER

LEWIS WOODPECKER

BOBWHITE. RIGHT, MALE. LEFT, FEMALE

RING-NECKED PHEASANT

California Quail Mountain Quail

MALE
SOOTY GROUSE, FEMALE

OREGON RUFFED GROUSE

BAND-TAILED PIGEON

MOURNING DOVE

KILLDER SPOTTED SANDPIPER

PIED-BILLED GREBE COOT

GREAT BLUE HERON

WESTERN RED-TAILED HAWK

DESERT SPARROW HAWK

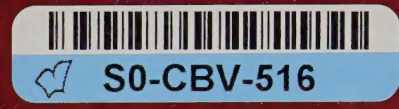
COOPER HAWK (FEMALE) SHARP-SHINNED HAWK

LONG-EARED OWL SHORT-EARED OWL DUSKY HORNED OWL

Barn Owl California Pygmy Owl Kennicott Screech Owl

ROAD RUNNER

-IDRN
841


S0-CBV-516